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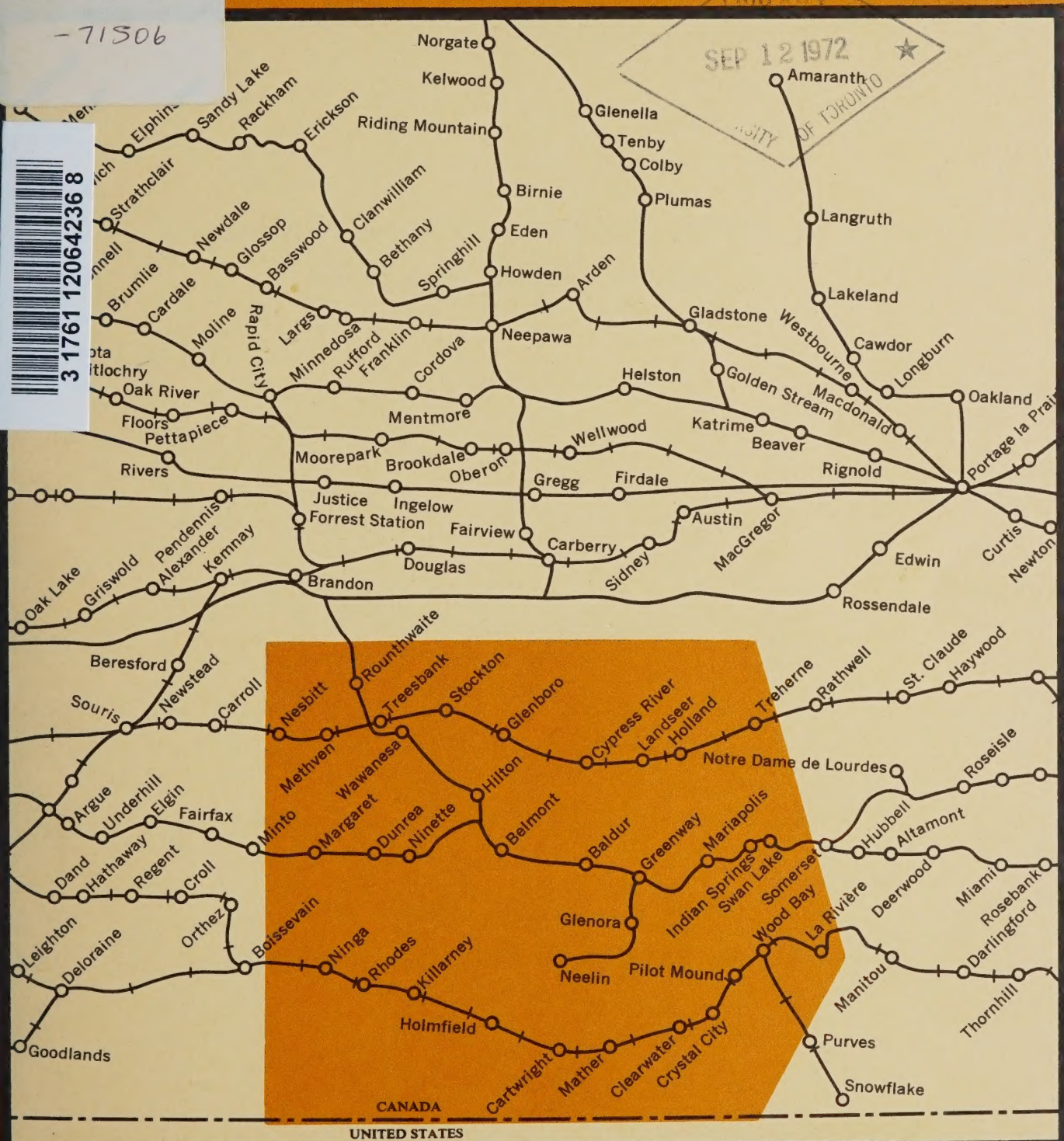
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PRAIRIE REGIONAL STUDIES IN ECONOMIC GEOGRAPHY NO. 6

THE KILLARNEY REGION OF MANITOBA

J.W. CHANNON, D. ZASADA, K. MORISON

ECONOMICS BRANCH, CANADA DEPARTMENT OF AGRICULTURE

THE KILLARNEY REGION OF IRELAND

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Publications in the Series of

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1. The Riverhurst Region of Saskatchewan by A.W. Burges, Geographical Branch, Department of Energy, Mines and Resources; and J.W. Channon, Economics Branch, Canada Department of Agriculture.
(Supplement to Riverhurst Regional Report, September, 1967)
2. The Boissevain Region of Manitoba by J.W. Channon, D. Zasada and R.T. Miller, Economics Branch, Canada Department of Agriculture.
3. The Rockglen Region of Saskatchewan by J.W. Channon, D. Zasada and R.T. Miller, Economics Branch, Canada Department of Agriculture.
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4. The Camrose-Vegreville Region of Alberta by J.W. Channon and D. Zasada, Economics Branch, Canada Department of Agriculture.
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5. The Weyburn Region of Saskatchewan, by J.W. Channon, H.R. Fast and D.A. Neil, Economics Branch, Canada Department of Agriculture.
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6. The Killarney Region of Manitoba by J.W. Channon, D. Zasada and K. Morison, Economics Branch, Canada Department of Agriculture.
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Preface

This is the sixth in a series of Prairie Regional Studies in Economic Geography. The emphasis of these reports is on grain farms and the communities and facilities serving these farms. The data describe the socio-economic activity of the region, from which the reader may gain an appreciation of the relative importance of the farms and the communities situated there.

Against the background of this knowledge the impact of proposed programs and contemplated changes in the infra-structure of the region may be assessed. However, the authors have generally refrained from drawing inferences, from making findings and from recommending solutions. Indeed, no attempt has even been made to search for and define a problem. We have been content to provide the parameters, bearing in mind the very significant changes in grain production and marketing that have been underway in the past several years.

Throughout the report the data have been tabulated by communities, i.e., the grain delivery points in the region, in ascending order of the number of services present in the community. It will be readily observed that the order of the tabulated data in each table does not necessarily follow this ascending order of services. Nevertheless, as was the case in the previous reports, the data assume a pattern that provides an insight into the relative viability of the communities.

A number of anomalies will be noted. These are usually explainable by our lack of consideration of the quality of the services. For instance, in Table 7 dealing with post office revenues, Wawanesa ranks immediately behind Killarney despite the fact that six other communities offer more services. The relatively large post office revenues stem from the presence there of the headquarters of the Wawanesa Mutual Insurance Company.



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PART I

Characteristics of the Communities

Thirty-one communities and their grain growing hinterlands were studied in the Killarney region. These, together with the former delivery points of Methven and Stockton, are listed in Table 1 in ascending order of rank according to the number of services present. The listing of the kinds of services available in each community appears in Table 2 of the report. An examination will yield an appreciation of the relative importance of the communities.

The Killarney Region was defined for purposes of this study as the area extending from the international border in the south to Township 9 in the north, and from Range 9 to Range 19 both west of the First Meridian, in the east-west direction. The area takes in over 2,500 square miles. The hamlet of Treesbank, on the Canadian Pacific, is somewhat of an anomaly in that, as a grain delivery point for purposes of the Canadian Wheat Board, it is considered as one with the town of Wawanesa, on the Canadian National Line. Permit holders have the privilege of delivering their grain to either point. Consequently, the two communities have a common grain-producing hinterland. Rhodes disappeared as a grain delivery point in 1967-68.

TABLE 1. - CLASSIFICATION OF COMMUNITIES IN THE STUDY AREA

Too Small To Classify 0-1 Services	Hamlets 2 - 8 Services	Villages 9 - 32 Services	Towns 33 - 59 Services	Greater Towns 60 or More Services
Methven Phodes	Indian Springs Wood Bay Landseer Greenway Hilton Stockton Neelin Treesbank Glenora Rounthwaite	Holmfild Nesbitt Ninga Clearwater Margaret Mather La Riviere Dunrea Mariapolis Ninette	Cypress River Belmont Swan Lake Holland Cartwright Wawanesa Crystal City Baldy	Treherne Glenboro Pilot Mound Killarney

Classification of Communities

The criterion for classification is the number of service activities in a community. "Too small to classify" refers primarily to former grain delivery points or to existing delivery points where a single elevator is the only service activity present. If there are from 2 to 8 services, it is a hamlet; if from 9 to 32, a village; and if from 33 to 59, it is a town. Greater towns have 60 or more service activities (Table 1).

This method of ranking is not perfect. For instance, it ignores dollar volume of retail sales in each community and it does not take into account the quality of each service. However, it appears to be more meaningful than a simple ranking by population.

Neither Methven nor Rhodes, has an active service and each is "too small to classify". In the hamlet classification, the predominant activity is the grain elevator. By examining Table 2, one can appreciate the relative importance of the communities in the area. It will also be noted in Table 2 that the services have been grouped under seven headings, namely: Farm Product Assembly, Retail Trade, Commercial Services, Public Services, Finance, Communication and Transportation, and Other Specialized Services. These in turn have been broken down into the type of service within each group.

The predominant type of service in hamlets is the post office - followed by grain companies, general stores and churches. A similar pattern holds for villages - with the addition of elementary schools, meeting halls, skating or curling rinks, garages, and bulk fuel dealers. In the larger villages there are also hotels, lumber yards and banking services.

Virtually the whole range of services is displayed in towns and greater towns. Where previously there may only have been one establishment, now there are several. Examples of the type of service located in towns and greater towns, but not in villages and hamlets, are seed cleaning plants, clothing stores, law offices, agricultural representative offices, telephone exchanges, insurance agencies and other specialized services. Other specialized services, not itemized in Table 2, are located mainly in the greater towns. These services include for example, funeral homes, drive-in movies and auto-wreckers.

TABLE 2. SERVICES PRESENT IN COMMUNITIES BY RANK, 1970

[illegible]

Farm Population

The delineation of the study area was arbitrary and no reference was made either to official crop districts or to census divisions. Nevertheless, the study area almost coincides with the areas included in Census Divisions 3 and 7. All the rural municipalities in Division 3 are included. In Census Division 7, the four municipalities in the north are excluded. The Census farm population in the Killarney region is shown in Table 3, by rural municipalities, from 1941 to 1966.

Without exception, all the municipalities experienced a steady decline in farm population over the twenty-five years. The percentage decrease varied from 39 percent in Lorne Municipality to less than 22 percent in Roblin. The overall decline in the study area was 30 percent, compared with 35 percent in the whole province.

This phenomenon is common to all areas and was noticed in the other five regions studies in this series.

TABLE 3. - FARM POPULATION IN THE STUDY AREA, BY RURAL MUNICIPALITY, CENSUS YEARS, 1941 TO 1966

Rural Municipality	1941	1951	1956	1961	1966
Indian Reserve	101	123	113	73	35
Victoria	1,165	1,036	923	872	734
Cypress S.	1,070	926	899	818	792
Strathcona	1,111	1,002	981	859	801
Oakland	1,105	993	961	804	834
Riverside	1,159	966	919	826	863
Roblin	1,371	1,194	1,226	1,098	1,074
Argyle	1,814	1,628	1,508	1,401	1,317
Norfolk S.	2,117	1,712	1,653	1,597	1,352
Turtle Mountain	2,195	1,854	1,771	1,579	1,501
Louise	2,092	1,893	1,919	1,750	1,612
Lorne	3,372	2,680	2,377	2,181	2,054
Pembina	2,931	2,651	2,531	2,145	2,182
Total	21,603	18,658	17,781	16,003	15,151
Census Division #3 - Total	16,146	13,991	13,345	11,912	11,439
Census Division #7 - Total	12,612	11,625	10,969	9,830	9,236
Farm Population in Manitoba	249,599	219,233	206,729	172,946	161,662

Source: Dominion Bureau of Statistics, Ottawa.

Population of the Communities

In contrast to the farm population, the number of people living in the organized communities increased. The increases generally appear in what we have defined as towns and greater towns, while the population of the hamlets and villages has declined. This same phenomenon was noticed in other areas of the Prairies. These trends illustrate the movement of people from small rural centres to larger centres.

In this study area two anomalies will be noticed. These are the village of Ninette, where the population has increased significantly over the past twenty-five years, and the town of Baldur, where the population has been static. The increase in Ninette is due to the sanitorium which has a capacity for several hundred patients.

TABLE 4. - POPULATION OF COMMUNITIES IN THE STUDY AREA, CENSUS YEARS, 1941 TO 1966

	1941	1951	1956	1961	1966
<u>Too Small to Classify</u>					
Methven	14	3	3	n.a.	n.a.
Rhodes	4	n.a.	n.a.	n.a.	n.a.
<u>Hamlets</u>					
Indian Springs	18	3	n.a.	n.a.	n.a.
Wood Bay	n.a.	n.a.	10	4	2
Landseer	5	17	25	2	5
Greenway	51	31	35	28	28
Hilton	81	40	30	36	24
Stockton	105	67	70	61	64
Neelin	96	63	72	42	55
Treesbank	37	34	34	39	29
Glenora	54	70	65	51	64
Rounthwaite	19	19	19	13	15
<u>Villages</u>					
Holmfield	140	169	139	122	73
Nesbitt	94	80	75	86	77
Ninga	190	176	157	129	108
Clearwater	128	171	158	121	104
Margaret	57	76	43	78	64
Mather	126	144	123	125	95
La Riviere	221	251	232	249	217
Dunrea	230	221	202	196	177
Mariapolis	211	210	221	258	191
Ninette	299	435	671	673	560
<u>Towns</u>					
Cypress River	260	282	297	288	262
Belmont	310	388	419	378	341
Swan Lake	222	326	332	307	312
Holland	341	392	428	433	418
Cartwright	348	476	459	482	409
Wawanesa	404	447	440	456	512
Crystal City	405	493	505	542	600
Baldur	402	376	387	370	401

- continued

TABLE 4. - POPULATION OF COMMUNITIES IN THE STUDY AREA, CENSUS YEARS, 1941 TO 1966 (concluded)

	1941	1951	1956	1961	1966
<u>Greater Towns</u>					
Treherne	519	589 ^{2/}	551	569	614
Glenboro	489	600 ^{3/}	765	797	776
Pilot Mound	538	710	785	802	767
Killarney	1,051	1,262 ^{4/}	1,434	1,729	1,836
Study Area Total	7,469	8,249	9,366	9,475	9,220
Census Division #3 and #7	61,450	63,661	68,443	71,516	73,244
Province of Manitoba	729,744	776,541	850,040	921,686	963,066

n.a.: not available.

1/ Cartwright and Crystal City Villages Incorporated 1947 (from Roblin and Louise respectively)

2/ Treherne Incorporated 1948 (from Norfolk S)

3/ Glenboro Incorporated 1950 (from Cypress S)

4/ Part of Turtle Mountain Annexed to Killarney Town, 1946.

Source: Dominion Bureau of Statistics, Ottawa.

Population by Specified Age and Sex Groups

Table 5 contains data from the 1966 census for incorporated villages and towns in the study area, as well as for the rural municipalities. The authors have accepted the data for rural municipalities as being representative of the grain-farm population data.

As far as proportions are concerned, the effective working age group (20 to 64 years of age) shows no significant difference between rural-farm and community dwellers. Approximately 46 percent of the total farm population and 45 percent of the population in the incorporated villages and towns is of the effective working age. The comparable figure for the Province of Manitoba is somewhat higher at 49.8 percent.

In the retired age group, studies in other areas covered in this series have disclosed that the proportion of farm-dwellers is below the proportion of people living in villages and towns. The present study is no exception. In the Killarney region, the respective proportions are 6.2 percent for rural municipalities and 15.7 percent for the seven incorporated communities. The provincial figure is only 6.2 percent, which is the same as the proportion of older people living on farms in the study area.

Men and boys outnumber women and girls in all the rural municipalities, but the opposite holds for all the seven communities, except the greater town of Glenboro where males outnumber females.

TABLE 5. - POPULATION, BY SPECIFIED AGE GROUPS AND SEX, OF COMMUNITIES AND RURAL MUNICIPALITIES IN THE STUDY AREA, 1966

COMMUNITIES	Total	- years of age -										70 and over
		0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	
Cartwright	T 409 M 193 F 216	31 13 18	34 16 18	31 18 13	39 12 27	15 10 5	32 16 16	40 17 23	51 25 26	63 30 33	22 13 9	51 23 28
Wawanesa	T 512 M 248 F 264	52 28 24	41 23 18	26 14 12	41 20 21	59 22 37	47 27 20	50 25 25	65 30 35	48 21 27	26 12 14	57 26 31
Crystal City	T 600 M 279 F 321	60 28 32	50 26 24	63 32 31	51 23 28	39 19 20	50 24 26	59 25 34	66 32 34	46 20 26	26 8 18	90 42 48
Treherne	T 614 M 285 F 329	42 17 25	50 23 27	46 23 23	51 27 24	44 17 27	50 24 26	52 25 27	66 30 36	63 33 30	42 13 29	108 53 55
Glenboro	T 776 M 403 F 373	51 31 20	79 46 33	91 55 36	61 30 31	31 15 16	55 26 29	82 41 41	87 38 49	72 36 36	43 21 22	124 64 60
Pilot Mound	T 767 M 377 F 390	47 26 21	51 23 28	70 35 35	70 41 29	40 25 15	47 27 20	71 33 38	88 40 48	80 34 46	57 30 27	146 63 83
Killarney	T 1,836 M 868 F 968	122 59 63	157 68 89	183 85 98	144 72 72	98 50 48	145 67 78	180 89 91	187 83 104	212 95 117	117 53 64	291 147 144
Indian Reserve	T 267 M 130 F 137	55 19 36	48 28 20	36 13 23	19 12 7	11 6 5	28 14 14	18 11 7	20 6 14	18 12 6	6 4 2	8 5 3
Cypress S.	T 895 M 485 F 410	95 46 49	81 41 40	111 56 55	93 53 40	42 23 19	76 38 38	94 49 45	139 73 66	88 60 28	33 19 14	43 27 16
Oakland	T 968 M 528 F 440	95 49 46	106 64 42	104 44 60	84 49 35	45 28 17	80 46 34	118 60 58	133 68 65	121 72 49	37 19 18	45 29 16
- continued												

- continued

TABLE 5. - POPULATION BY SPECIFIED AGE GROUPS AND SEX, OF COMMUNITIES AND RURAL MUNICIPALITIES IN THE STUDY AREA, 1966 (continued)

			- years of age -												
Total			0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-69	70 and over		
Roblin	T	1,193	115	161	155	113	50	118	156	137	92	39	57		
	M	642	57	87	84	59	25	62	84	80	55	16	33		
	F	551	58	74	71	54	25	56	72	57	37	23	24		
Riverside	T	1,275	130	178	158	110	65	94	141	163	123	31	82		
	M	667	66	91	88	60	36	44	66	85	67	17	47		
	F	608	64	87	70	50	29	50	75	78	56	14	35		
Victoria	T	1,503	138	165	161	144	53	118	153	212	150	69	140		
	M	806	83	89	85	76	30	59	73	118	75	35	83		
	F	697	55	76	76	68	23	59	80	94	75	34	57		
Strathcona	T	1,557	154	151	152	174	90	137	159	170	162	70	138		
	M	786	74	73	74	78	34	74	83	83	99	38	76		
	F	771	80	78	78	96	56	63	76	87	63	32	62		
Norfolk S.	T	1,706	156	222	221	179	83	138	195	212	138	63	99		
	M	895	79	113	109	94	52	66	96	118	84	32	52		
	F	811	77	109	112	85	31	72	99	94	54	31	47		
Turtle Mountain	T	1,769	207	230	209	144	90	198	217	202	149	48	75		
	M	957	113	114	113	79	53	94	119	104	93	30	45		
	F	812	94	116	96	65	37	104	98	98	56	18	30		
Louise	T	1,806	182	208	248	192	82	137	244	240	147	42	84		
	M	962	90	112	128	106	48	68	128	125	88	21	48		
	F	844	92	96	120	86	34	69	116	115	59	21	36		
Argyle	T	1,896	190	197	219	178	104	152	216	207	199	86	148		
	M	997	87	101	111	94	64	77	107	115	102	52	87		
	F	899	103	96	108	84	40	75	109	92	97	34	61		
Pembina	T	2,773	284	325	368	281	134	255	345	342	224	66	149		
	M	1,459	151	173	187	148	77	125	173	177	130	28	80		
	F	1,314	133	152	181	133	57	130	172	165	94	38	69		
Lorne	T	3,033	386	383	349	265	150	316	328	335	232	76	213		
	M	1,579	202	195	181	135	88	149	173	176	119	46	115		
	F	1,454	184	188	168	130	62	167	155	159	113	30	98		

- continued

TABLE 5. - POPULATION BY SPECIFIED AGE GROUPS AND SEX, OF COMMUNITIES AND RURAL MUNICIPALITIES IN THE STUDY AREA (concluded)

		Total	0-4	5-9	10-14	- years of age -				25-34	35-44	45-54	55-64	56-69	70 and over
						15-19	20-24								
Study Area Total	T	26,155	2,592	2,917	3,001	2,433	1,325	2,273	2,918	2,273	2,918	3,133	2,427	999	2,148
	M	13,546	1,318	1,506	1,535	1,268	722	1,127	1,477	1,127	1,477	1,606	1,325	517	1,145
	F	12,609	1,274	1,411	1,466	1,165	603	1,146	1,441	1,146	1,441	1,516	1,102	482	1,003
Division No. 3 and	T	73,244	7,244	7,822	7,624	6,806	4,511	7,488	8,687	7,488	8,687	8,380	6,251	2,538	5,893
	M	37,103	3,653	4,071	3,867	3,515	2,271	3,773	4,307	3,773	4,307	4,233	3,220	1,241	2,952
	F	36,141	3,591	3,751	3,757	3,291	2,240	3,715	4,380	3,715	4,380	4,147	3,031	1,297	2,941
Provincial Total	T	963,066	102,425	105,527	99,227	87,848	66,899	109,460	117,065	109,460	117,065	106,752	79,005	28,668	60,190
	M	484,266	52,476	53,862	50,701	44,404	33,787	55,255	57,764	55,255	57,764	53,162	39,881	14,059	28,915
	F	478,800	49,949	51,665	48,526	43,444	33,112	54,205	59,301	54,205	59,301	53,590	39,124	14,609	31,275

1/ Excluding all incorporated towns and villages.

T - Total
M - Male
F - Female

Source: Dominion Bureau of Statistics, Ottawa.

TABLE 6. - PROPORTION OF POPULATION FALLING WITHIN SPECIFIED AGE GROUPS, 1966

	Pre-School & School Age Group (0 to 19)	Working Age Group (20 to 69)	Retired Age Group (70 and over)
- per cent -			
Communities:			
Cartwright	33.0	54.5	12.5
Wawanesa	31.3	57.6	11.1
Crystal City	37.3	47.7	15.0
Treherne	30.8	51.6	17.6
Glenboro	36.3	47.7	16.0
Pilot Mound	31.0	49.9	19.1
Killarney	33.0	51.1	15.9
Rural Municipalities:^{1/}			
Indian Reserve	59.2	37.8	3.0
Cypress S.	42.5	52.7	4.8
Oakland	40.2	55.2	4.6
Roblin	45.6	49.6	4.8
Riverside	45.2	48.4	6.4
Victoria	40.5	50.2	9.3
Strathcona	40.5	50.6	8.9
Norfolk S.	45.6	48.6	5.8
Turtle Mountain	44.7	51.1	4.2
Louise	46.0	49.4	4.6
Argyle	41.4	50.8	7.8
Pembina	45.4	49.2	5.4
Lorne	45.6	47.4	7.0
Study Area Total	41.8	49.9	8.3
Division No. 3 and No. 7 - Total	40.3	51.7	8.0
Provincial Total	41.0	52.7	6.3

^{1/} Excluding all incorporated towns and villages.

School Enrolment

It is evident from the school enrolment figures (Table 7) that the study area has followed the trend towards consolidating schools and locating them in the larger communities. The communities under the heading of "too small to classify" and the majority of hamlets, with the exception of Neelin and Glenora, have no schools. All the villages excepting Nesbitt maintain grade schools. There are high schools to grade twelve in three towns, Wawanesa, Baldur and Crystal City, as well as in all the greater towns. Belmont has a school for grades one to nine and Cartwright has classes from kindergarten to grade eleven.

In the village of Mariapolis and the greater towns of Treherne, Glenboro and Pilot Mound there are special classes for the educable mentally handicapped.

One of the problems in the scheme of consolidation is the provision of facilities for bussing children to and from schools. Consolidation does, however, alleviate some of the problems associated with rural education.

TABLE 7. - SCHOOL ENROLMENT, BY GRADE, SCHOOL YEAR 1968-69

	Total	Special Class	Kinder- garten	1	2	3	4	5	6	7	8	9	10	11	12
- number of pupils -															
<u>Too Small to Classify</u>															
Methven	No School	(included in Wawanesa)													
Rhodes	No School	(included in Ethelbert)													
<u>Hamlets</u>															
Indian Springs	No School	(included in Swan Lake)													
Wood Bay	No School	(included in Pilot Mound)													
Landseer	No School	(included in Holland)													
Greenway	No School	(included in Baldur)													
Hilton	No School	(included in Wawanesa)													
Stockton	No School	(included in Glenboro)	3	6	1	-	-	2	1	1	1				
Neelin	14														
Treesbank	No School	(included in Wawanesa)	6	5	4	4	4	3	2	5					
Glenora	33														
Rounthwaite	No School	(included in Wawanesa)													
<u>Villages</u>															
Holmfild	79		7	6	12	12	12	9	9	12					
Nesbitt	No School	(included in Wawanesa)													
Ninga	65		10	10	11	4	5	12	6	7					
Clearwater	91	14	7	9	13	9	12	10	10	7					
Margaret	49		3	8	4	8	3	10	11	2					
Mather	81		10	9	12	12	9	14	9	6					
La Riviere	119		17	9	14	14	14	19	14	18					
Dunrea	103		16	11	16	14	13	13	12	8					
Mariapolis	98	17	9	14	12	10	11	7	10	8					
Ninette	65		10	10	11	4	5	12	6	7					
<u>Towns</u>															
Cypress River	110		15	9	18	9	15	9	20	15					
Belmont	163		15	18	16	20	15	22	16	17		24			
Swan Lake	124		14	17	21	9	16	15	12	20					
Holland	140		18	18	19	18	16	20	16	15					
Cartwright	259		21	23	19	25	19	25	20	26		24	25	14	
Wawanesa	371	18	39	36	35	38	28	34	27	35		22	29	27	21
Crystal City	393		20	23	23	21	16	25	27	25		60	54	42	50
Baldur	219		17	18	8	11	21	22	21	25		32	18	12	14
<u>Greater Towns</u>															
Treherne	377	9	20	27	24	15	24	16	30	22		55	51	44	40
Glenboro	550	13	29	33	32	38	32	36	37	39		53	64	54	57
Pilot Mound	425	8	43	21	37	27	25	29	38	37		35	33	31	31
Killarney	971		56	80	68	60	55	72	71	82		123	95	83	76

Source: Manitoba Department of Education, Winnipeg.

Post Office Revenue

Post Office revenues serve as an indicator of the socio-economic activity in a community and the area it serves. The community of Methven (too small to classify) and the hamlet of Landseer lost their postal service in 1964 and 1962 respectively. In the group of hamlets generally, between 1958-59 and 1968-69 there was a decrease in postal revenues, although Wood Bay, Glenora and Rounthwaite each showed a small increase. Communities classified as villages, towns and greater towns all experienced increases in postal revenue, with the exception of Holmfield, Nesbitt, Ninga and Belmont. These increases ranged from eight percent in Mariapolis to 93 percent in Killarney. In absolute terms Killarney had the largest dollar increase - from \$14,651 to \$28,333.

The presence of the headquarters of the Wawanesa Mutual Insurance Company in the town of Wawanesa is responsible for the relatively heavy post office revenues in that community.

TABLE 8. - POST OFFICE REVENUE, BY COMMUNITIES, FISCAL YEARS 1958-59 TO 1968-69

	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
- dollars -											
<u>Too Small to Classify</u>	62	53	55	35	31	30	Closed 1964				
<u>Methven</u>											
Hamlets											
Indian Springs	433	268	235	194	334	298	233	255	198	233	280
Wood Bay	137	101	142	114	134	144	173	150	173	133	170
Landseer	187	192	117	96	25	Closed 1962					
Greenway	423	367	340	323	308	279	316	331	330	297	279
Hilton	389	346	326	309	337	318	344	313	286	255	244
Stockton	665	605	565	573	563	580	610	696	637	574	478
Neelin	853	770	656	659	672	613	543	571	556	514	370
Treesbank	490	511	433	431	432	405	378	427	501	464	486
Glenora	658	613	583	577	627	666	658	654	666	636	690
Rounthwaite	354	344	350	385	348	346	448	444	426	464	438
Villages											
Holmfild	1,165	1,121	961	892	784	785	912	796	776	784	724
Nesbitt	1,087	990	1,017	982	961	967	1,069	1,090	1,066	1,109	1,065
Ninga	1,126	1,022	957	995	946	852	880	820	806	733	770
Clearwater	1,481	1,452	1,410	1,405	1,405	1,440	1,594	1,779	1,731	1,739	1,724
Margaret	886	842	867	846	883	892	967	1,037	985	1,040	993
Mather	1,520	1,466	1,418	1,433	1,454	1,395	1,557	1,640	1,490	1,561	1,660
La Riviere	1,733	1,738	1,891	1,907	1,834	1,768	2,082	2,200	1,993	2,015	2,107
Dunrea	1,727	1,598	1,645	1,808	1,815	1,790	1,831	1,875	1,861	2,006	2,154
Mariapolis	1,399	1,384	1,444	1,451	1,463	1,446	1,649	1,616	1,630	1,527	1,593
Ninette	5,017	4,963	4,747	5,324	5,618	5,580	5,971	5,622	5,818	6,087	5,883
Towns											
Cypress River	2,840	2,806	2,754	2,803	2,822	2,985	3,335	3,357	3,709	3,840	3,996
Belmont	4,400	4,299	5,006	4,270	4,115	4,153	4,647	4,713	4,330	4,219	4,270
Swan Lake	3,391	3,150	3,330	3,268	3,472	3,800	3,543	3,649	3,770	3,953	4,170
Holland	3,790	3,869	4,011	4,116	4,322	4,616	4,909	5,150	5,161	5,489	5,393
Cartwright	5,138	4,993	5,158	5,030	5,111	5,188	5,645	5,631	5,805	6,019	5,973
Wawanesa	12,272	12,690	12,689	11,835	12,915	13,116	14,460	16,589	14,916	15,420	15,736
Crystal City	6,315	6,260	6,410	6,302	7,003	6,847	7,801	8,509	8,130	8,528	9,589
Baldur	4,618	4,107	4,222	4,429	4,661	4,896	5,202	5,498	5,634	5,793	6,051
Greater Towns											
Treherne	5,902	6,123	6,110	6,255	6,435	6,420	7,328	7,494	7,816	7,874	8,113
Glenboro	7,682	7,494	7,477	7,683	7,930	8,312	9,217	9,428	9,237	9,818	10,300
Pilot Mound	7,593	7,626	8,239	8,636	8,636	9,077	10,385	10,093	11,042	11,293	12,502
Killarney	14,651	15,042	15,800	16,853	17,901	18,710	21,062	22,660	24,419	27,141	28,333

Source: Post Office Department, Ottawa.

Property Tax Assessment

The property tax assessment figures in Table 9 show the relative importance of railway property and other railway occupancies to the tax base of the communities of the area. Railway associated assessment is expressed as a percentage of the total tax assessment.

Generally this percentage declines as the number of service activities in the community increases. This is adequately displayed in the study by the points Rhodes and Killarney where the proportions are 100 percent and 11.8 percent respectively.

One exception to this trend is the village of Ninette. The low percentage here, 8.2, is due to certain topographical peculiarities of this community that limit railway ownership to a narrow belt of land.

TABLE 9. - PROPERTY TAX ASSESSMENT, BY COMMUNITY, 1968

	Methven	Rhodes	Indian Springs	Wood Bay	Landseer	Greenway	Hilton	Stockton	Neelin	Treesbank	Glenora
- dollars -											
<u>Right-of-Way Properties</u>											
Railway Property	560	260	330	20	460	600	550	410	690	360	490
Roadway (R.O.W.)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Other Trackage	880	-	350	490	-	640	-	500	280	500	250
Other Land	-	-	-	-	-	170	-	-	-	170	-
Buildings	-	-	-	-	300	50	50	660	900	320	1,120
Business	-	-	-	-	-	-	-	-	-	-	-
Other (R.O.W.) Occupancies											
Taxable Land	70	-	70	40	230	140	-	30	240	40	270
Taxable Buildings	-	-	15,100	10,770	17,930	10,540	-	5,630	34,870	6,220	12,260
Taxable Business	-	-	2,070	1,980	3,660	2,040	-	30	5,400	1,470	2,580
Total Assessment of Railway Property	2,510	1,260	18,920	14,300	23,580	15,180	1,600	8,260	43,380	10,080	17,970
28											
<u>Non Right-of-Way Properties</u>											
Taxable Land	5,500	-	30	160	-	830	950	930	2,480	460	1,800
Taxable Buildings	490	-	1,020	2,110	-	6,310	11,470	13,880	14,870	11,280	25,570
Taxable Business	480	-	1,320	780	-	180	480	810	-	210	980
Total Assessment of Non-Railway Property	6,470	-	2,370	3,050	-	7,320	12,900	15,620	17,350	11,950	28,350
Total Tax Assessment	8,980	1,260	21,290	17,350	23,580	22,500	14,500	23,880	60,730	22,030	46,320
Per Cent of Tax Assessment derived from Railway Associated Property	28.0	100.0	88.9	82.4	100.0	67.5	11.0	34.5	71.4	45.8	38.8

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TABLE 9. PROPERTY TAX ASSESSMENT, BY COMMUNITY, 1968 (continued)

	Holmfield	Nesbitt	Ninga	Clearwater	Margaret	Mather	La Riviere	Dunrea	Mariapolis	Ninette
- dollars -										
<u>Right-of-Way Properties</u>										
Railway Property	650	940	1,370	1,270	1,540	740	1,550	2,450	850	1,320
Roadway (R.O.W.)	1,060	1,000	2,020	1,000	1,000	1,000	1,000	1,000	1,560	1,000
Other Trackage	700	860	660	640	280	310	441	420	420	530
Other Land	220	-	-	-	-	-	-	-	-	1,300
Buildings	330	2,300	150	-	210	1,270	3,510	5,150	1,470	300
Business	-	-	-	-	-	90	390	240	-	-
Other (R.O.W.) Occupancies										
Taxable Land	160	450	740	250	290	450	1,000	1,440	1,190	430
Taxable Buildings	10,470	36,900	37,960	24,080	28,150	27,540	44,480	62,100	26,690	13,250
Taxable Business	3,090	5,670	7,980	4,380	4,520	5,310	5,430	8,490	4,380	1,980
Total Assessment of Railway Property	16,680	48,120	50,880	31,620	35,990	36,710	57,801	81,290	36,560	20,110
<u>Non Right-of-Way Properties</u>										
Taxable Land	4,840	5,800	10,810	6,620	2,650	5,160	16,500	13,530	23,080	20,080
Taxable Buildings	34,650	33,330	43,170	52,700	29,440	61,550	124,380	104,930	155,080	199,360
Taxable Business	780	360	120	1,830	1,260	1,980	6,210	5,070	6,330	6,470
Total Assessment of Non-Railway Property	40,270	39,490	54,100	61,150	33,350	68,690	147,090	123,530	184,490	225,910
Total Tax Assessment	56,950	87,610	104,980	92,770	69,340	105,400	204,891	204,820	221,050	246,020
Per Cent of Tax Assessment derived from Railway Associated Property	29.3	54.9	48.5	34.1	51.9	34.8	28.2	39.7	16.5	8.2

- continued

TABLE 9. - PROPERTY TAX ASSESSMENT, BY COMMUNITY, 1968 (concluded)

	Cypress River	Belmont	Swan Lake	Holland	Cart- wright	Wawanesa	Crystal City	Baldur	Treherne	Glenboro	Pilot Mound	Killarney
- dollars -												
<u>Right-of-Way Properties</u>												
Railway Property	930	1,090	640	1,910	1,810	3,290	2,110	2,060	2,820	3,630	2,180	5,000
Roadway (R.O.W.)	1,000	1,000	1,000	1,000	2,460	3,480	3,390	2,000	2,280	3,000	3,540	5,500
Other Trackage	900	1,810	410	1,070	680	920	560	800	950	1,260	710	890
Other Land	-	30	-	-	-	50	-	100	-	630	-	-
Buildings	5,170	3,060	1,200	3,950	3,770	5,500	2,730	1,670	6,890	8,470	5,370	7,350
Business	210	240	360	390	150	600	360	420	1,140	750	600	720
<u>Other (R.O.W.) Occupancies</u>												
Taxable Land	3,660	1,450	6,340	2,890	3,780	2,480	7,210	2,580	9,540	11,080	24,990	19,110
Taxable Buildings	59,380	44,700	85,060	77,380	49,680	25,910	44,210	12,710	84,500	74,280	72,520	211,550
Taxable Business	8,400	7,140	14,220	14,520	9,480	2,010	13,020	7,530	13,230	11,520	11,440	33,060
Total Assessment of Railway Property	79,650	60,520	109,230	103,110	71,810	44,240	73,590	29,870	121,350	114,620	121,350	283,180
<u>Non Right-of-Way Properties</u>												
Taxable Land	27,060	33,010	40,540	59,480	31,330	28,380	97,638	56,110	155,130	110,030	148,480	336,390
Taxable Buildings	173,110	216,330	275,350	302,580	204,690	329,170	469,030	365,770	605,680	536,130	761,780	1,681,860
Taxable Business	8,940	7,200	11,100	15,210	17,040	13,620	22,670	18,270	28,620	32,310	32,330	99,225
Total Assessment of Non-Railway Property	209,110	256,540	326,990	377,270	253,060	371,170	589,338	440,150	789,430	678,470	942,590	2,117,475
Total Tax Assessment	288,760	317,060	436,220	480,380	324,870	415,410	662,928	470,020	910,780	793,090	1,603,940	2,400,655
Per Cent of Tax Assessment derived from Railway Associated Property	27.6	19.1	25.0	21.5	22.1	10.6	11.1	6.4	13.3	14.5	11.4	11.8

Source: Dept. of Municipal Affairs, Saskatchewan Government.

Carload Rail Traffic

The data regarding volume of carload rail traffic (Table 10) only serve to stress the over-riding importance of agriculture in the economic life of most delivery points in the study area. At virtually all points, the predominant traffic is outbound grain. The two points grouped as "too small to classify" are basically grain storage points and, therefore, there is no outgoing traffic. In the case of the hamlets, the number of outbound cars in 1968 ranged from 14 cars in Treesbank to 141 cars in Rounthwaite. Generally, as the size of the community increases, so does the rail traffic generated by grain. This is related to the number of permit holders and quota acres which also increase with the classification of the community. By looking ahead at Table 22, one can see this relationship between the number of permits and the size of the community. Obviously, the larger points will receive more grain than the smaller ones (Table 24) and, by the same token, transfer more grain to terminal positions.

One exception to this premise would be the village of La Riviere. However, by breaking down the "Products of Agriculture" into particular crops one finds that there were in 1968, 111 cars of grain shipped from this point. Judging from other figures in the table this would be reasonable for a point this size. The other 469 cars were loaded with sugar beets, which grow well in this area.

Although Methven is now closed as a grain delivery point, there is still some inbound traffic attributable to a Hutterite colony in the area. In latter years, this has been building materials brought in by rail. Generally the inbound traffic to the hamlets is very small. Among the villages, Ninette has the greatest volume, as coal for fuel at the sanitorium is brought in by rail.

In the towns and greater towns, there is generally a greater volume of both incoming and outgoing rail traffic. The greatest volume is at Killarney, the largest community, with 193 inbound cars and 329 outbound cars in 1968. The inbound rail traffic is generated by the larger communities. One must keep in mind however, that what is shown in Table 10 is rail traffic. Trucking, which has taken much short haul movement away from the railways, probably serves the smaller communities. Larger centres such as Killarney and Pilot Mound probably act as distribution points for trucking to many points in the study area.

TABLE 10. - REVENUE, CARLOAD TRAFFIC, BY COMMUNITY, 1960 TO 1968

Delivery Point	1960		1961		1962		1963		1964		1965		1966		1967		1968	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
- cars -																		
Too Small to Classify																		
Methuen																		
Products of Agriculture	n/a	n/a	n/a	n/a	2	-	n/a	n/a	-	1	-	13	-	1	-	2	-	-
Products of Mines	n/a	n/a	n/a	n/a	32	44	n/a	n/a	4	3	1	-	-	1	1	-	-	-
Products of Forests	n/a	n/a	n/a	n/a	35	1	n/a	n/a	2	-	1	-	-	-	1	-	1	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	1	-	n/a	n/a	1	-	2	-	-	-	1	-	-	-
Total	n/a	n/a	n/a	n/a	70	45	n/a	n/a	7	4	4	13	-	2	3	2	1	-
Rhodes																		
Products of Agriculture	1	21	-	28	-	10	-	16	-	22	-	14	-	29	-	13	-	-
Products of Mines	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Products of Forests	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Manufactures and Misc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	21	-	28	-	10	-	16	1	22	-	14	-	29	-	13	-	-
Hamlets																		
Indian Springs																		
Products of Agriculture	-	66	-	70	-	30	-	94	-	-	-	67	-	-	-	60	-	57
Products of Mines	5	-	5	-	4	-	4	-	-	-	1	-	-	-	4	-	4	-
Products of Forests	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manufactures and Misc.	10	-	-	-	-	-	-	-	11	72	3	-	-	-	-	-	1	-
Total	17	66	5	70	4	30	4	94	11	72	4	67	5	95	4	60	5	57
Wood Bay																		
Products of Agriculture	n/a	n/a	n/a	n/a	-	42	n/a	n/a	-	46	-	44	-	72	-	29	-	24
Products of Mines	n/a	n/a	n/a	n/a	1	-	n/a	n/a	1	-	1	-	-	-	-	-	-	-
Products of Forests	n/a	n/a	n/a	n/a	1	-	n/a	n/a	-	-	-	-	-	-	-	-	-	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	-	-	n/a	n/a	-	-	-	-	-	-	-	-	-	-
Total	n/a	n/a	n/a	n/a	2	42	n/a	n/a	1	46	1	44	-	72	-	29	-	24
Landseer																		
Products of Agriculture	n/a	n/a	n/a	n/a	-	47	n/a	n/a	-	59	-	61	-	67	-	14	-	30
Products of Mines	n/a	n/a	n/a	n/a	3	-	n/a	n/a	3	-	2	-	2	-	2	-	3	-
Products of Forests	n/a	n/a	n/a	n/a	-	-	n/a	n/a	-	-	-	-	-	-	-	-	1	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	-	-	n/a	n/a	1	-	1	-	1	-	-	-	1	-
Total	n/a	n/a	n/a	n/a	3	47	n/a	n/a	4	59	3	61	3	67	2	14	5	30
Greenway																		
Products of Agriculture	5	56	5	38	-	29	-	66	-	-	-	48	-	-	-	18	-	33
Products of Mines	3	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Products of Forests	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manufactures and Misc.	-	-	-	-	-	1	-	-	-	-	1	-	-	-	7	-	11	33
Total	8	66	7	38	-	30	1	66	-	33	1	48	11	61	7	18	11	33

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TABLE 10. - REVENUE, CARLOAD TRAFFIC, BY COMMUNITY, 1960 TO 1968 (continued)

Delivery Point	1960		1961		1962		1963		1964		1965		1966		1967		1968	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
-cars -																		
Hilton																		
Products of Agriculture	-	35	-	41	n/a	n/a	-	-	-	-	-	40	-	-	-	-	-	-
Products of Mines	4	-	4	-	n/a	n/a	-	-	-	-	1	-	-	-	-	-	-	-
Products of Forests	-	-	-	-	n/a	n/a	-	-	-	-	-	-	-	-	-	-	-	-
Manufactures and Misc.	-	-	-	-	n/a	n/a	-	-	-	-	1	-	-	-	-	-	-	-
Total	4	35	4	41	n/a	n/a	3	44	1	40	2	40	-	30	-	-	-	-
Stockton																		
Products of Agriculture	n/a	n/a	n/a	n/a	13	18	n/a	n/a	-	-	-	12	22	13	-	1	-	-
Products of Mines	n/a	n/a	n/a	n/a	-	-	n/a	n/a	-	-	-	-	-	-	-	-	-	-
Products of Forests	n/a	n/a	n/a	n/a	-	-	n/a	n/a	-	-	-	-	-	-	-	-	-	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	-	-	n/a	n/a	-	-	2	-	2	-	-	-	-	-
Animals and Products	n/a	n/a	n/a	n/a	-	-	n/a	n/a	-	3	-	3	-	-	-	-	-	-
Total	n/a	n/a	n/a	n/a	13	18	n/a	n/a	-	3	2	15	24	13	-	1	-	-
Neelin																		
Products of Agriculture	-	81	-	92	-	85	-	-	-	-	-	128	-	-	-	89	82	-
Products of Mines	7	-	11	-	7	-	-	-	-	-	4	-	-	-	4	-	4	-
Products of Forests	-	-	-	-	-	-	-	-	-	-	5	-	-	-	2	-	-	-
Manufactures and Misc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Total	7	81	11	92	7	85	6	148	7	100	9	128	7	141	7	89	4	82
Treesbank																		
Products of Agriculture	n/a	n/a	n/a	n/a	-	191	n/a	n/a	-	18	-	30	-	34	-	21	-	14
Products of Mines	n/a	n/a	n/a	n/a	5	-	n/a	n/a	6	-	6	-	6	-	4	-	2	-
Products of Forests	n/a	n/a	n/a	n/a	-	-	n/a	n/a	-	-	-	-	-	-	5	-	-	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	-	-	n/a	n/a	69	-	-	-	-	-	-	-	-	-
Total	n/a	n/a	n/a	n/a	5	191	n/a	n/a	75	18	6	30	6	34	9	21	2	14
Glenora																		
Products of Agriculture	-	110	-	91	-	84	-	-	-	-	-	119	-	-	-	103	-	58
Products of Mines	15	-	9	-	12	-	-	-	-	-	9	-	-	-	10	-	7	-
Products of Forests	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
Manufactures and Misc.	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	15	110	10	91	12	84	9	146	10	123	12	119	10	128	10	103	7	58
Rounthwaite																		
Products of Agriculture	1	54	-	49	n/a	n/a	-	-	-	-	-	259	-	-	-	172	-	141
Products of Mines	3	-	2	-	n/a	n/a	-	-	-	-	1	-	-	-	3	-	-	-
Products of Forests	-	-	-	-	n/a	n/a	-	-	-	-	-	-	-	-	4	-	-	-
Manufactures and Misc.	1	-	-	-	n/a	n/a	-	-	-	-	1	-	-	-	6	-	7	-
Animals and Products	-	-	-	-	n/a	n/a	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	54	2	49	n/a	n/a	2	190	2	158	2	259	8	245	13	173	7	141

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TABLE 10. - REVENUE, CARLOAD TRAFFIC, BY COMMUNITY, 1960 TO 1968 (continued)

Delivery Point	1960		1961		1962		1963		1964		1965		1966		1967		1968	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
- cars -																		
Villages																		
Holmfield																		
Products of Agriculture	2	54	-	50	-	44	-	70	-	58	-	84	-	110	-	71	-	33
Products of Mines	9	-	9	-	9	-	6	-	4	1	1	-	-	-	-	-	1	-
Products of Forests	-	-	1	-	1	-	1	-	1	-	4	-	1	-	1	-	-	-
Manufactures and Misc.	3	4	-	1	-	-	1	2	1	24	1	-	4	-	6	-	3	-
Total	14	58	10	51	10	44	7	72	5	83	6	84	5	110	7	71	4	33
Nesbitt																		
Products of Agriculture	n/a	n/a	n/a	n/a	-	114	n/a	n/a	-	215	-	240	-	354	-	189	-	146
Products of Mines	n/a	n/a	n/a	n/a	7	-	n/a	n/a	4	-	5	-	2	-	1	1	-	-
Products of Forests	n/a	n/a	n/a	n/a	2	-	n/a	n/a	2	-	3	-	5	-	-	-	-	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	9	114	n/a	n/a	6	215	8	240	7	354	108	190	2	-
Total	n/a	n/a	n/a	n/a	9	114	n/a	n/a	6	215	8	240	7	354	109	190	2	146
Ninga																		
Products of Agriculture	3	131	1	244	-	97	-	82	1	211	1	189	-	252	1	72	1	116
Products of Mines	43	-	34	-	39	-	35	-	35	-	35	-	34	-	31	-	26	-
Products of Forests	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
Manufactures and Misc.	14	-	10	-	11	-	6	-	16	-	5	-	6	-	6	1	9	1
Total	60	131	45	244	50	97	41	82	54	211	41	189	40	252	38	73	36	117
Clearwater																		
Products of Agriculture	-	105	-	119	-	93	-	170	-	135	-	142	-	217	-	116	-	76
Products of Mines	10	-	12	-	10	-	9	-	9	-	11	-	4	-	3	-	2	-
Products of Forests	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Manufactures and Misc.	17	-	19	-	22	1	1	1	13	1	3	1	3	-	3	-	4	-
Animals and Products	1	111	-	127	1	80	1	88	-	56	-	-	-	-	-	-	-	-
Total	28	216	31	246	34	174	30	259	22	192	14	143	7	217	6	116	6	76
Margaret																		
Products of Agriculture	-	125	-	138	-	80	-	-	-	-	-	150	-	-	-	113	-	76
Products of Mines	8	-	6	-	9	-	-	-	-	-	9	-	-	-	6	-	4	-
Products of Forests	2	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Manufactures and Misc.	7	-	2	-	1	-	-	-	-	-	3	-	-	-	3	-	2	-
Animals and Products	3	4	2	4	3	7	-	-	-	-	-	2	-	-	1	3	-	2
Total	20	129	12	142	14	87	114	144	16	120	12	152	11	160	10	116	6	78
Mather																		
Products of Agriculture	5	132	-	119	-	89	-	187	-	172	-	131	-	200	-	112	-	99
Products of Mines	19	-	19	-	19	-	22	-	17	-	14	-	11	-	9	-	9	-
Products of Forests	-	-	-	-	-	-	-	-	-	-	1	-	2	-	1	-	1	-
Manufactures and Misc.	1	-	1	-	-	-	1	-	2	1	1	22	3	28	4	-	2	-
Total	25	132	20	119	19	89	23	187	19	173	16	153	16	228	14	112	12	99

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TABLE 10. - REVENUE, CARLOAD TRAFFIC, BY COMMUNITY, 1960 TO 1968 (continued)

Delivery Point	1960		1961		1962		1963		1964		1965		1966		1967		1968	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
- cars -																		
La Riviere																		
Products of Agriculture	n/a	n/a	n/a	n/a	-	109	n/a	n/a	-	159	-	173	-	244	-	307	-	580
Products of Mines	n/a	n/a	n/a	n/a	16	-	n/a	n/a	15	-	13	-	10	-	8	-	4	-
Products of Forests	n/a	n/a	n/a	n/a	1	-	n/a	n/a	-	-	1	-	1	-	-	-	-	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	6	-	n/a	n/a	1	1	4	-	8	-	13	47	11	-
Animals and Products	n/a	n/a	n/a	n/a	-	2	n/a	n/a	1	1	-	-	-	-	-	1	-	-
Total	n/a	n/a	n/a	n/a	23	111	n/a	n/a	17	161	18	173	19	244	21	355	15	580
Dunree																		
Products of Agriculture	-	180	-	179	-	121	-	-	-	-	-	208	-	-	-	202	-	132
Products of Mines	14	-	15	-	14	-	-	-	-	-	12	-	-	-	8	-	2	-
Products of Forests	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Manufactures and Misc.	75	-	51	-	61	-	-	-	-	-	50	-	-	-	19	-	13	-
Animals and Products	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Total	91	181	66	180	75	122	76	195	70	165	62	208	54	278	27	202	16	133
Holland																		
Products of Agriculture	n/a	n/a	n/a	n/a	1	247	n/a	n/a	-	232	1	238	-	351	2	107	-	182
Products of Mines	n/a	n/a	n/a	n/a	45	-	n/a	n/a	34	-	41	-	29	-	26	-	17	-
Products of Forests	n/a	n/a	n/a	n/a	4	-	n/a	n/a	3	-	4	-	7	-	5	-	4	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	51	-	n/a	n/a	28	-	15	-	19	-	24	2	20	-
Total	n/a	n/a	n/a	n/a	101	247	n/a	n/a	65	232	61	238	55	351	57	109	41	182
Cartwright																		
Products of Agriculture	7	178	-	185	3	161	1	257	-	254	1	243	2	257	-	191	-	154
Products of Mines	55	-	37	-	41	-	32	-	31	-	26	-	27	-	21	-	13	-
Products of Forests	-	-	-	-	9	-	-	-	-	-	3	-	7	-	3	-	5	-
Manufactures and Misc.	93	-	76	-	92	-	133	-	122	-	75	-	84	-	64	-	32	-
Animals and Products	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Total	165	178	113	185	145	161	166	257	153	254	106	243	120	257	88	191	50	154
Wawanesa																		
Products of Agriculture	4	111	-	101	n/a	n/a	-	-	-	-	-	176	-	-	-	115	-	116
Products of Mines	32	-	25	-	n/a	n/a	-	-	-	-	21	-	-	-	12	-	12	-
Products of Forests	5	-	5	-	n/a	n/a	-	-	-	-	3	-	-	-	3	-	2	-
Manufactures and Misc.	66	-	45	-	n/a	n/a	-	-	-	-	69	2	-	-	25	-	24	-
Animals and Products	-	-	-	-	n/a	n/a	-	-	-	-	-	-	-	-	-	1	-	-
Total	107	111	75	101	n/a	n/a	90	161	171	112	93	178	69	172	40	116	38	116
Crystal City																		
Products of Agriculture	4	156	-	139	77	161	72	204	76	223	58	253	48	348	46	185	32	146
Products of Mines	56	-	45	-	50	-	33	-	32	-	23	-	19	-	15	-	13	-
Products of Forests	-	-	-	-	-	-	-	-	-	-	2	-	3	-	3	-	-	-
Manufactures and Misc.	35	-	35	-	20	1	39	-	44	-	33	1	26	-	28	-	19	-
Total	95	156	80	139	77	161	72	204	76	223	58	253	48	348	46	185	32	146

TABLE 10. - REVENUE, CARLOAD TRAFFIC, BY COMMUNITY, 1960 TO 1968 (continued)

Delivery Point	1960		1961		1962		1963		1964		1965		1966		1967		1968	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Baldur																		
Products of Agriculture	3	143	7	124	-	93	1	186	-	-	-	161	-	-	-	105	-	93
Products of Mines	45	-	42	-	45	-	36	-	-	-	3	-	-	-	30	-	25	-
Products of Forests	9	-	4	-	5	-	5	-	-	-	-	-	-	-	5	-	5	-
Manufactures and Misc.	77	-	66	-	34	-	51	-	-	-	62	-	-	-	13	-	9	-
Total	134	143	119	124	84	93	93	186	54	119	65	161	61	189	48	105	39	93
Mariapolis																		
Products of Agriculture	-	102	2	77	-	49	-	101	-	-	-	87	-	-	-	78	-	71
Products of Mines	23	-	23	-	18	-	15	-	-	-	13	-	-	-	8	-	8	-
Products of Forests	3	-	5	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
Manufactures and Misc.	77	-	73	-	72	-	81	-	-	-	55	-	-	-	31	-	27	-
Total	103	102	103	77	91	49	97	101	68	80	68	87	59	116	39	78	35	71
Ninette																		
Products of Agriculture	-	66	-	45	-	34	-	-	-	-	-	63	-	-	-	41	-	62
Products of Mines	148	-	142	-	136	-	-	-	-	-	128	-	-	-	127	-	127	-
Products of Forests	6	-	3	-	4	-	-	-	-	-	-	-	-	-	-	-	1	-
Manufactures and Misc.	11	-	4	-	2	-	-	-	-	-	16	-	-	-	1	1	-	-
Total	165	66	149	45	142	34	140	75	150	54	144	63	139	97	128	42	128	62
Towns																		
Cypress River																		
Products of Agriculture	n/a	n/a	n/a	n/a	-	183	n/a	n/a	-	203	-	257	-	289	-	155	-	174
Products of Mines	n/a	n/a	n/a	n/a	27	-	n/a	n/a	27	-	28	-	25	-	22	-	17	-
Products of Forests	n/a	n/a	n/a	n/a	5	-	n/a	n/a	4	-	2	-	5	-	3	-	4	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	-	-	n/a	n/a	24	-	102	1	110	-	201	1	14	1
Total	n/a	n/a	n/a	n/a	32	183	n/a	n/a	55	203	132	258	140	289	226	156	35	152
Belmont																		
Products of Agriculture	7	137	-	109	-	99	2	188	-	-	-	147	-	-	-	134	-	152
Products of Mines	50	-	42	-	43	-	40	-	-	-	37	-	-	-	32	-	22	-
Products of Forests	4	-	2	-	2	-	-	-	-	-	-	-	-	-	2	-	2	-
Manufactures and Misc.	14	-	19	1	18	-	13	-	-	-	16	1	-	-	11	-	4	-
Animals and Products,	1	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	76	140	64	110	63	99	55	188	47	164	53	148	50	195	45	134	28	152
Swan Lake																		
Products of Agriculture	-	191	-	235	-	222	1	270	-	-	-	312	-	-	-	135	-	150
Products of Mines	31	-	28	-	32	-	30	-	-	-	31	-	-	-	24	-	23	-
Products of Forests	13	-	9	-	12	-	9	-	-	-	3	-	-	-	7	-	-	-
Manufactures and Misc.	59	-	48	-	50	-	54	-	-	-	34	1	-	-	13	1	14	-
Total	103	191	85	235	94	222	94	270	59	162	68	313	72	322	44	136	37	150

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TABLE 10. REVENUE, CARLOAD TRAFFIC, BY COMMUNITY, 1960 TO 1968 (concluded)

Delivery Point	1960		1961		1962		1963		1964		1965		1966		1967		1968	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Greater Towns																		
Treherne																		
Products of Agriculture	n/a	n/a	n/a	n/a	3	191	n/a	n/a	1	240	2	293	3	385	3	171	-	180
Products of Mines	n/a	n/a	n/a	n/a	56	-	n/a	n/a	41	-	38	-	28	-	24	-	22	-
Products of Forests	n/a	n/a	n/a	n/a	8	-	n/a	n/a	7	-	9	-	8	-	8	-	4	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	121	2	n/a	n/a	74	-	58	1	51	-	52	1	54	2
Total	n/a	n/a	n/a	n/a	188	193	n/a	n/a	123	240	107	294	90	385	87	172	80	182
Glenboro																		
Products of Agriculture	n/a	n/a	n/a	n/a	2	150	n/a	n/a	-	196	-	235	-	299	-	202	-	149
Products of Mines	n/a	n/a	n/a	n/a	73	-	n/a	n/a	53	-	62	-	44	-	29	-	24	-
Products of Forests	n/a	n/a	n/a	n/a	5	-	n/a	n/a	4	-	3	-	9	-	12	-	4	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	103	-	n/a	n/a	100	-	97	-	100	-	143	1	33	-
Animals and Products	n/a	n/a	n/a	n/a	-	-	n/a	n/a	-	-	-	-	-	-	-	-	-	-
Total	n/a	n/a	n/a	n/a	183	150	n/a	n/a	157	197	162	235	153	299	184	203	61	149
Pilot Mound																		
Products of Agriculture	n/a	n/a	n/a	n/a	-	142	n/a	n/a	3	201	1	219	1	354	1	168	2	136
Products of Mines	n/a	n/a	n/a	n/a	248	-	n/a	n/a	40	-	35	-	22	-	14	-	9	-
Products of Forests	n/a	n/a	n/a	n/a	12	-	n/a	n/a	9	-	9	1	14	-	8	-	9	-
Manufactures and Misc.	n/a	n/a	n/a	n/a	75	-	n/a	n/a	108	-	82	1	83	-	42	-	45	-
Total	n/a	n/a	n/a	n/a	435	142	n/a	n/a	160	201	127	221	120	354	65	168	65	136
Killarney																		
Products of Agriculture	6	240	3	237	13	312	2	548	4	578	3	746	1	836	-	405	-	327
Products of Mines	180	-	155	-	170	-	150	-	153	-	140	-	130	-	111	-	95	-
Products of Forests	7	-	-	-	18	-	-	-	5	-	14	-	17	-	27	-	18	-
Manufactures and Misc.	182	2	204	-	153	-	204	-	199	1	134	4	164	1	140	-	80	-
Animals and Products	-	7	-	6	1	9	-	1	1	3	-	3	1	2	-	2	-	2
Total	375	249	362	243	355	321	356	549	362	582	291	753	313	839	278	407	193	329

- cars -

Products of Agriculture: All grains, seeds, hay and straw, etc.

Products of Mines : Coal, cement, brick, asphalt, lime, etc.

Products of Forests : Lumber, and all processed natural wood, plywood, shingles, posts, poles, etc.

Manufactures and Misc. : Fertilizers, fuel oil, gasoline, scrap metal, etc.

n/a : No information available.

1/ For those points with no build up of railway traffic, only totals were available (i.e. Indian Springs, 1964).

Source: Canadian Pacific Rail and Canadian National Railways.

Rail Freight Traffic Density

Table 11 contains data for three different years on the net tons of freight per mile of road in the Killarney region. The figures used are those for the subdivisions lying at least partly within the study area. Thus it would not be correct to interpret the figures to mean the net tons per mile of road between the pairs of points listed in the Table.

All the lines in the study area are light density, except the Glenboro subdivision of the Canadian Pacific. "Light density" is arbitrarily defined as less than 100,000 net tons per mile of road. The short stub line between Greenway and Neelin has the least traffic density. This line is what was left after the closing of the Wakopa subdivision of the Canadian National. The Glenboro subdivision carries a great deal of through traffic, including such heavy loadings as coal.

TABLE 11. - RAILWAY FREIGHT TRAFFIC DENSITY ON LINES IN THE STUDY AREA, 1963, 1966, 1968.

Railway Subdivision	Year	From	To	000's net tons per mile of road
<u>CANADIAN PACIFIC</u>				
Glenboro	1963	Carroll	Treherne	726
	1966	Carroll	Treherne	1,230
	1968	Carroll	Treherne	509
Napinka	1963	Ninga	La Riviere	89
	1966	Ninga	La Riviere	115
	1968	Ninga	La Riviere	60
<u>CANADIAN NATIONAL</u>				
Carman	1963	Belmont	Somerset	84
	1966	Belmont	Somerset	35
	1968	Belmont	Somerset	45
Hartney	1963	Minto	Belmont	33
	1966	Minto	Belmont	50
	1968	Minto	Belmont	41
Wawanesa	1963	Rounthwaite	Belmont	54
	1966	Rounthwaite	Belmont	49
	1968	Rounthwaite	Belmont	30
Wakopa	1963	Neelin	Greenway	11
	1966	Neelin	Greenway	55
	1968	Neelin	Greenway	21

PART II

Agricultural Characteristics

Soil Capability for Agriculture

A copy of the soil capability map for the Brandon Region is inserted in an envelope inside the back cover of this report. A perusal of this map will disclose that Class 3 soils predominate in the study area, although frequently mixed with classes 2, 4 and 5. Under good management, these soils are capable of fair productivity for a fair range of crops. Class 3 soils have moderately severe limitations that may restrict the range of crop or that require special conservation practices. The impediments of working these soils include stoniness, adverse topography, and in some areas, excess water.

Class 2 soils occur around the periphery of the study area. It will be interesting to note from Table 17, the correlation between grain yield per acre and the soil capability class. Such hinterlands as Rounthwaite, Swan Lake, Wood Bay and Clearwater are located mostly on Class 2 soils.

The predominating kind of soil in the study area is clay loam of various texture. The surface drainage in the region is provided by the Pembina River in the southern part and the Assiniboine River in the north.

The study region is located near the eastern boundary of the second prairie steppe and ranges between approximately 1,300 feet in the east and 1,600 feet in the west.

Figure A

Single aerial photograph taken in the vicinity of Killarney, Manitoba, on August 10, 1970 at a contact scale of 1/80,000. The photograph depicts about 121 square miles.

The north half of the photograph generally shows the clay loam tills typical of the study region. The white "specks" indicate well-drained knolls eroded by wind and water. Their appearance may be exaggerated in the photograph by the limey B horizon of the soils.

The southern half consists of undulating to rolling clay loam tills, with many glacial channels and gullies. It is interesting to note the sub-parallel drainage pattern here, formed perhaps by old spillways. This kind of terrain and the adjacent rough prairie pastureland has likely influenced the type of farming here.

The general land use and the type of farmsteads indicate a slight emphasis on livestock in this combination livestock-cash crop area.



Figure B

Single aerial photograph taken in the vicinity of Cypress River, Manitoba on July 21, 1970 at a contact scale of 1/80,000. The photograph depicts about 121 square miles.

The upper third of the photograph shows a sand dune area covered with both heavy and light native vegetation. The remaining portion consists of water laid materials of fine sandy loam to light clay loam with an area of granular clay in the parallel patterned area in the lower right corner.

The general land use, the farmstead buildings, the livestock activity patterns, including the manuring of fields, and the amount of rough and improved pasture land indicates that the area is one concerned with a livestock-cash crop context, with the emphasis on livestock.

Although there are a number of farms which have been absorbed by farm enlargement, the photo interpretation would indicate that the enlargement facet has not been extensive in nature.



Temperature Norms and Extremes

The meteorological data for the study area, shown in Table 12, are taken from four stations within and near the area. Cypress River, Ninette and Pilot Mound have weather stations that are located within the study area. Brandon station is outside the area and to the north. The climate of the area is continental, characterized by relatively hot summers (maximum 180° F.) and cold winters (minimum -49° F.). The mean summer temperature (May to September) is 60° F. The mean winter temperature (November to March) is approximately 14° F.

All weather stations in the region have recorded killing frosts during the month of June. Cypress River has had an August minimum of 25° F. The average frost free period in the region is approximately 110 days. The average date of start of grass growth (above 42°F. mean temperature) in spring is April 20.

TABLE 12. - TEMPERATURES: MONTHLY NORMS AND EXTREMES AT METEOROLOGICAL STATIONS IN OR NEAR THE STUDY AREA

Meteorological Station	January	February	March	April	May	June	July	August	September	October	November	December	Year
<u>Brandon</u>													
Mean Daily Maximum(1)	8.5	14.0	27.7	48.2	64.3	71.3	79.9	76.7	65.1	52.3	30.6	16.6	46.3
Mean Daily Minimum(1)	-9.7	-7.0	7.1	26.0	38.3	48.5	53.7	51.5	41.5	29.5	13.4	-2.2	24.1
Mean Daily Temperature(1)	-0.6	3.5	17.4	37.1	51.3	59.9	66.8	64.1	53.3	40.9	22.0	7.2	35.2
Maximum Temperature(2)	41	53	62	90	92	95	103	99	89	86	66	45	103
Minimum Temperature(2)	-41	-43	-43	-10	15	26	36	33	15	0	-27	-35	-43
<u>Cypress River</u>													
Mean Daily Maximum(1)	11.2	14.9	28.1	49.1	64.5	72.3	79.9	77.5	65.0	52.7	31.2	18.8	47.2
Mean Daily Minimum(1)	-7.4	-5.7	7.9	27.5	39.9	50.3	56.1	53.9	42.8	31.1	15.0	1.4	26.0
Mean Daily Temperature(1)	1.9	4.6	18.0	38.3	52.2	61.3	68.0	65.7	54.2	41.9	23.1	10.1	36.6
Maximum Temperature(3)	42	53	67	92	100	105	108	103	97	90	66	43	108
Minimum Temperature(3)	-43	-41	-38	-8	10	26	33	25	13	-15	-34	-33	-43
<u>Ninette</u>													
Mean Daily Maximum(2)	11.1	17.3	30.0	49.2	65.0	72.0	79.4	77.7	66.1	53.8	31.9	19.3	47.7
Mean Daily Minimum(2)	-7.5	-3.5	9.1	26.6	39.5	48.8	54.9	52.3	42.1	32.0	15.8	2.3	26.0
Mean Daily Temperature(2)	1.8	6.9	19.6	37.9	52.3	60.4	67.2	65.0	54.1	42.9	23.9	10.8	36.9
Maximum Temperature(4)	49	56	73	92	103	102	105	100	101	87	67	61	105
Minimum Temperature(4)	-48	-49	-35	-16	12	26	32	30	11	-9	-27	-39	-49
<u>Pilot Mound</u>													
Mean Daily Maximum(5)	11.3	15.1	28.6	48.0	62.9	73.2	78.0	77.9	65.3	54.7	32.8	17.5	47.1
Mean Daily Minimum(5)	-6.3	-3.6	10.5	28.0	39.1	49.6	53.9	52.3	41.4	33.0	15.8	0.3	26.2
Mean Daily Temperature(5)	2.5	5.8	19.6	38.0	51.0	61.4	66.0	65.1	53.4	43.9	24.3	8.9	36.7
Maximum Temperature(2)	50	52	73	91	92	99	98	101	97	90	66	47	101
Minimum Temperature(2)	-41	-40	-34	-8	18	26	33	34	19	7	-30	-32	-41

(1) The data for these normals were from the full ten-year period 1951 to 1960 adjusted to the standard normal period 1931 to 1960.

(2) Normals were computed directly from a period of record of 25 to 30 years within the period 1931 to 1960. In most cases the record existed over the full 30 years.

(3) These averages are based on the period of record 10 to 24 years during the period 1931 to 1960. No adjustment factor has been used.

(4) These averages were obtained by taking a ten-year period of record ending in the early 1960's. No adjustment factor was used.

(5) These data are based on the period of record of less than ten years.

Source: Canada Department of Transport, Meteorological Branch, Toronto.

Precipitation

The mean annual precipitation is between 18 and 20 inches. About two thirds of the precipitation falls as rain. The conversion factor used is 10 inches of snow equals one inch of rain.

Rainfall during the growing season is usually adequate to produce a crop, averaging 12 inches each year.

TABLE 13. PRECIPITATION: MONTHLY AND ANNUAL MEAN AT METEOROLOGICAL STATIONS IN OR NEAR THE STUDY AREA

Meteorological Station	January	February	March	April	May	June	July	August	September	October	November	December	Year
Brandon (airport) ²													
Rain	0.00	0.00	0.13	0.62	1.94	3.54	2.92	2.60	1.57	0.66	0.13	0.01	14.12
Snow	7.6	5.6	8.9	4.3	0.8	0.0	0.0	0.0	0.3	3.8	7.2	7.9	46.4
Total Precipitation	0.76	0.56	1.02	1.05	2.02	3.54	2.92	2.60	1.60	1.04	0.85	0.80	18.76
Cypress River ³													
Rain	0.00	0.05	0.06	0.72	1.79	3.54	2.75	2.48	1.71	0.83	0.21	T ¹	14.14
Snow	9.7	5.5	9.2	3.4	0.3	0.0	0.0	0.0	0.0	2.8	6.9	8.5	46.3
Total Precipitation	.97	0.60	0.98	1.06	1.82	3.54	2.75	2.48	1.71	1.11	0.90	0.85	18.77
Ninette ²													
Rain	0.01	0.02	0.14	0.72	2.05	3.70	2.52	2.81	1.57	0.75	0.23	0.04	14.56
Snow	8.6	6.9	10.2	4.4	0.7	0.0	0.0	0.0	0.3	3.1	7.2	8.8	50.2
Total Precipitation	0.87	0.71	1.16	1.16	2.12	3.70	2.52	2.81	1.60	1.06	0.95	0.92	19.58
Pilot Mound ⁴													
Rain	T	0.01	0.33	0.93	1.85	3.29	2.74	2.65	1.64	0.85	0.22	T	14.51
Snow	9.1	8.2	9.3	3.5	0.3	0.0	0.0	0.0	0.1	2.7	8.8	8.4	50.4
Total Precipitation	0.91	0.83	1.26	1.26	1.88	3.29	2.74	2.65	1.65	1.12	1.10	0.84	19.55

1. T - (TRACE) - Less than 0.005 inches of precipitation

2. Normals were computed directly from a period of record of 25 to 30 years within the period 1931 to 1960. In most cases the record existed over the full 30 years.

3. These averages are based on the period of record of 10 to 24 years during the period 1931 to 1960. No adjustments factor has been used.

4. These normals are based on the full 30-year period from 1931 to 1960.

NOTE: Total precipitation measured in inches of rain. Ten inches of snow equals one inch of rain.

Source: Canada Department of Transport, Meteorological Branch, Toronto.

Sales of Farm Land in the Study Area

An indication of farm land transactions in the study area is provided by data in Table 14. For the seven year period from 1963 to 1969 there were 293 transactions recorded, with an average of approximately 320 acres per deal. These transactions are representative in the sense that family and other types of deals involving concessions were excluded from the tabulations. It must also be noted that only Farm Credit Corporation transactions were taken into consideration.

Prices steadily increased and the average price more than doubled between 1963 and 1969. Many factors enter into determining farm land value. Superficially, it appears that the following three factors would be cited in explaining the observed price levels: soil classification, general inflation, and the grain marketing situation. Class 1 or 2 land is generally higher priced relative to Class 3 or 4. General economic inflation is, in time, reflected in rising land values. Finally, when grain marketings keep pace with production there is an upward pressure on land values but when the supply of grain becomes too large relative to demand, the pressure on land values is downward.

TABLE 14. REPRESENTATIVE FARM VALUES, BY SALES PRICE PER ACRE, 1963 TO 1969

Year	Number of Transactions	Total Number of Acres	Price Per Acre		
			Low \$	High \$	Average \$
1963	27	7,663	25.00	112.50	41.71
1964	30	10,483	10.42	99.68	50.71
1965	40	13,322	14.06	125.00	67.80
1966	52	16,553	33.68	177.30	68.06
1967	66	20,861	15.63	171.88	92.09
1968	50	15,181	35.71	195.00	90.61
1969	28	10,070	23.43	158.70	94.65

Source: Farm Credit Corporation, Canada Department of Agriculture,
Ottawa.

Disposition of Grain Farm Acreage, Crop Years 1962-63, 66-67, 69-70

The acreage devoted to various crop enterprises, according to the information provided by the farmers in the affidavits substantiating their requests for delivery permit books, is shown for the crop years 1962-63, 1966-67 and 1969-70, in Tables 15, 16, 17.

Total farm acreage increased for the study area as a whole. In 1966-67 the farm acreage increased by 14,597 acres and in 1969-70 it increased by another 13,624 acres.

Although, there was this general increase in acreage in 1966-67 and in 1969-70, many of the smaller communities showed losses in acreage tributary to the grain elevators in those communities. Hilton, which closed its elevator service in 1966-67 in essence lost 17,951 acres. The land is, of course, located in the same place but the grain is redistributed to alternate delivery points.

While many of the smaller communities showed a decrease in 1969 acreage, most of the larger communities showed an increase. For example, the hamlet of Wood Bay went from 18,180 acres in 1962-63 to 15,400 acres in 1966-67, and to 14,540 acres in 1969-70, whereas Killarney went from 175,539 to 178,433 to 185,735 acres in the same respective crop years.

Wheat was the predominant enterprise for the three crop years shown, increasing by 22,000 acres in 1966-67, but declining by 82,000 acres in 1969-70. No doubt the large sales of wheat to Russia and the People's Republic of China had a bearing on the increase of wheat acreage and the decrease of other crop acreage, just as wheat surplus would have an opposite effect. In other words, the grain producers cut back their acreage of these grains for which the market was depressed. Oats remained basically the same from 1962-63 to 1969-70, but showed a minor decrease in 1966-67. Barley acreage increased from 3,262 acres in 1962-63 to 11,214 acres in 1969-70. Acres in flaxseed more than doubled in 1966-67 and held at that level in 1969-70. In the earliest crop year shown, flaxseed was 42,790 acres. In 1969-70 there were 96,358 acres. Rapeseed also showed an increase of approximately 6,000 acres.

Changes in enterprise between the three crop years for any particular delivery point may be examined by comparing Tables 15, 16, 17.

The proportion of land summerfallowed showed little change over the three crop years, being 23.3 percent, 19.6 percent, and 22.0 percent respectively.

TABLE 15. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE, BY DELIVERY POINT, 1962-1963

Delivery Point	Wheat	Durum	Oats	Barley	Rye	Summer Fallow	Forage Crops	Flaxseed	Rapeseed	Other Crops	Unimproved Land	Total
<u>Too Small To Classify</u>												
Rhodes												
Acres	1,705	42	696	330	-	2,197	413	357	-	-	1,993	7,733
Percent of Total	22.0	0.6	9.0	4.3	-	28.4	5.3	4.6	-	-	25.8	100.0
<u>Hamlets</u>												
Indian Springs												
Acres	5,589	20	3,629	87	42	5,008	1,229	139	-	719	3,432	20,885
Percent of Total	31.5	0.1	17.4	0.4	0.2	24.0	5.9	0.7	-	3.4	16.4	100.0
<u>Wood Bay</u>												
Acres	4,101	40	2,435	803	10	2,953	1,313	662	-	187	5,676	18,180
Percent of Total	22.6	0.2	13.4	4.5	-	16.3	7.2	3.6	-	1.0	31.2	100.0
<u>Landseer</u>												
Acres	4,948	-	2,705	237	441	3,555	1,320	512	-	164	5,078	18,960
Percent of Total	26.1	-	14.3	1.2	2.3	18.7	7.0	2.7	-	0.9	26.8	100.0
<u>Greenway</u>												
Acres	5,485	20	2,385	306	-	3,683	1,563	250	-	148	5,085	18,925
Percent of Total	29.0	0.0	12.6	1.6	-	19.5	8.3	1.3	-	0.8	26.9	100.0
<u>Hilton</u>												
Acres	2,987	-	1,942	205	-	4,140	984	440	-	70	7,183	17,951
Percent of Total	16.6	-	10.8	1.1	-	23.1	5.5	2.5	-	0.4	40.0	100.0
<u>Neelin</u>												
Acres	9,265	352	3,349	1,170	577	7,833	1,381	862	-	184	17,028	42,001
Percent of Total	22.1	0.8	8.0	2.8	1.4	18.6	3.3	2.1	-	0.4	40.5	100.0
<u>Glenora</u>												
Acres	10,814	167	4,363	529	863	7,677	1,661	1,168	-	55	11,973	39,270
Percent of Total	27.5	0.4	11.1	1.4	2.2	19.6	4.2	3.0	-	0.1	30.5	100.0
<u>Rounthwaite</u>												
Acres	11,430	421	3,003	3,553	873	10,865	1,253	434	-	20	10,185	42,037
Percent of Total	27.2	1.0	7.1	8.5	2.1	25.8	3.0	1.0	-	0.0	24.3	100.0
<u>Villages</u>												
Holmfield												
Acres	5,182	307	3,165	166	-	5,420	962	343	-	90	9,217	24,852
Percent of Total	20.9	1.2	12.7	0.7	-	21.8	3.9	1.4	-	0.4	37.0	100.0
<u>Nesbitt</u>												
Acres	15,491	1,237	6,763	2,206	-	16,473	1,790	1,426	22	344	16,385	62,137
Percent of Total	24.9	2.0	10.9	3.5	-	26.5	2.9	2.3	0.0	0.6	26.4	100.0
<u>Ninga</u>												
Acres	14,010	163	5,846	1,677	-	16,024	2,949	943	-	-	11,673	53,285
Percent of Total	26.3	0.3	11.0	3.1	-	30.1	5.5	1.8	-	-	21.9	100.0

TABLE 15. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE, BY DELIVERY POINT, 1962-1963 (continued)

Delivery Point	Wheat	Durum	Oats	Barley	Rye	Summer Fallow	Forage Crops	Flaxseed	Rapeseed	Other Crops	Unimproved Land	Total
Clearwater Acres	11,821	440	6,658	275	312	8,991	3,461	1,948	-	30	11,894	45,830
Percent of Total	25.8	1.0	14.5	0.6	0.7	19.6	7.6	4.3	-	0.0	25.9	100.0
Margaret Acres	10,160	521	3,426	1,486	291	9,663	1,295	2,059	-	-	7,485	36,386
Percent of Total	27.9	1.4	9.4	4.1	0.8	26.6	3.6	5.7	-	-	20.5	100.0
Mather Acres	11,842	781	6,037	729	15	11,722	1,790	3,921	-	216	12,545	49,598
Percent of Total	23.9	1.6	12.2	1.5	0.0	23.6	3.6	7.9	-	0.4	25.3	100.0
La Riviere Acres	12,263	-	5,619	1,130	-	9,419	2,087	70	1,015	130	14,736	46,469
Percent of Total	26.4	-	12.1	2.5	-	20.3	4.5	0.1	2.2	0.2	31.7	100.0
Dunrea Acres	16,128	810	6,284	828	329	14,490	2,377	1,437	-	135	16,212	59,030
Percent of Total	27.3	1.4	10.6	1.4	0.6	24.6	4.0	2.4	-	0.2	27.5	100.0
Mariapolis Acres	6,991	180	2,261	229	-	5,626	1,277	580	-	15	5,161	23,320
Percent of Total	31.3	0.8	10.2	1.0	-	25.2	5.7	2.6	-	0.1	23.1	100.0
Ninette Acres	6,547	328	3,175	281	-	6,132	1,985	358	-	339	12,280	31,425
Percent of Total	20.8	1.0	10.1	0.9	-	19.5	6.3	1.2	-	1.1	39.1	100.0
Towns												
Cypress River Acres	18,276	597	9,397	1,550	1,439	15,918	5,149	729	-	250	15,317	68,622
Percent of Total	26.6	0.9	13.7	2.3	2.1	23.2	7.5	1.1	-	0.3	22.3	100.0
Belmont Acres	13,213	226	7,709	2,066	707	13,474	4,051	200	-	25	25,456	67,127
Percent of Total	19.7	0.3	11.5	3.1	1.1	20.1	6.0	0.3	-	0.0	37.9	100.0
Swan Lake Acres	17,426	320	8,578	1,463	383	13,723	4,010	1,406	-	628	11,154	59,091
Percent of Total	29.6	0.5	14.5	2.5	0.6	23.2	6.7	2.4	-	1.1	18.9	100.0
Holland Acres	13,985	155	8,879	1,292	2,416	13,306	6,222	2,381	180	313	22,253	71,382
Percent of Total	19.6	0.2	12.4	1.8	3.4	18.7	8.7	3.3	0.3	0.4	31.2	100.0
Cartwright Acres	16,804	2,544	8,879	1,692	105	16,878	4,284	3,354	-	206	20,007	74,753
Percent of Total	22.5	3.4	11.9	2.3	0.1	22.6	5.7	4.5	-	0.2	26.8	100.0

TABLE 15. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE, BY DELIVERY POINT, 1962-1963 (concluded)

Delivery Point	Wheat	Durum	Oats	Barley	Rye	Summer Fallow	Forage Crops	Flaxseed	Rapeseed	Other Crops	Unimproved Land	Total
Wawanasa-Treesbank Acres	12,654	1,075	4,917	640	1,216	12,498	2,267	934	-	313	14,772	51,286
Percent of Total	24.7	2.1	9.6	1.2	2.4	24.4	4.4	1.8	-	0.6	28.8	100.0
Crystal City Acres	13,303	206	7,356	2,769	40	11,902	4,210	5,533	-	88	6,544	51,951
Percent of Total	25.6	0.4	14.2	5.3	0.1	22.9	8.1	10.6	-	0.2	12.6	100.0
Baldur Acres	14,949	104	7,205	1,303	510	12,413	3,153	415	-	604	24,004	64,658
Percent of Total	23.1	0.2	11.2	2.0	0.8	19.2	4.9	0.6	-	0.9	37.1	100.0
Greater Towns												
Treherne Acres	18,852	130	11,159	635	2,117	15,231	8,058	3,308	10	316	18,535	78,351
Percent of Total	24.1	0.2	14.2	0.8	2.7	19.4	10.3	4.2	0.0	0.4	23.7	100.0
Glenboro Acres	17,218	634	13,179	888	2,380	17,442	8,151	820	-	10	31,888	92,610
Percent of Total	18.6	0.7	14.2	1.0	2.6	18.8	8.8	0.9	-	0.0	34.4	100.0
Pilot Mound Acres	15,000	291	8,042	3,597	-	13,502	5,180	2,319	20	433	10,527	58,911
Percent of Total	25.5	0.5	13.7	6.1	-	22.9	8.8	3.9	0.0	0.7	17.9	100.0
Killarney Acres	40,498	2,309	20,654	3,262	162	41,813	7,747	3,482	-	242	55,370	175,539
Percent of Total	23.1	1.3	11.8	1.9	0.1	23.8	4.4	2.0	-	0.1	31.5	100.0
Study Area Total Acres	379,935	14,420	189,695	37,384	15,218	349,971	93,572	42,790	1,247	6,274	441,039	1,571,555
Percent of Total	24.2	0.9	12.1	2.4	0.9	22.3	5.9	2.7	0.1	0.4	28.1	100.0

Source: Canadian Wheat Board.

TABLE 16. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE, BY DELIVERY POINT, 1966-67

Delivery Point	Wheat	Durum	Oats	Barley	Rye	Summer Fallow	Forage Crops	Flaxseed	Rapeseed	Other Crops	Unimproved Land	Total
<u>Too Small to Classify</u>												
Rhodes												
Acres	1,672	-	749	485	-	1,124	477	705	-	42	1,659	6,913
Percent of Total	24.2	-	10.8	7.0	-	16.3	6.9	10.2	-	0.6	24.0	100.0
Hamlets												
Indian Springs												
Acres	6,162	-	3,189	842	10	4,534	1,950	464	-	665	3,349	21,165
Percent of Total	29.1	-	15.1	4.0	0.0	21.4	9.2	2.2	-	3.2	15.8	100.0
Wood Bay												
Acres	3,631	-	1,773	978	-	1,703	1,416	1,315	-	9.0	4,494	15,400
Percent of Total	23.6	-	11.5	6.4	-	11.0	9.2	8.5	-	0.6	29.2	100.0
Landseer												
Acres	4,541	-	2,157	704	90	2,941	1,473	555	54	229	4,126	16,870
Percent of Total	26.9	-	12.8	4.2	0.5	17.4	8.7	3.3	0.3	1.4	24.5	100.0
Greenway												
Acres	4,402	-	1,885	315	-	3,218	1,487	681	10	152	4,134	16,284
Percent of Total	27.0	-	11.6	1.9	-	19.8	9.1	4.2	0.1	0.9	25.4	100.0
Hilton												
Acres												- 47 -
Percent of Total												
Neelin												
Acres	10,022	-	3,703	1,634	192	7,704	1,912	1,955	-	327	15,102	41,921
Percent of Total	23.9	-	8.8	3.9	0.4	16.9	4.6	4.7	-	0.8	36.0	100.0
Glenora												
Acres	10,683	90	3,967	732	80	7,779	1,903	1,370	-	-	9,120	35,724
Percent of Total	29.9	0.3	11.1	2.1	0.2	21.8	5.3	3.8	-	-	25.5	100.0
Rounthwaite												
Acres	12,499	-	2,566	5,126	979	9,769	1,471	1,280	340	182	9,140	43,352
Percent of Total	28.8	-	5.9	11.8	2.3	22.5	3.4	3.0	0.8	0.4	21.1	100.0
Villages												
Holmfild												
Acres	6,545	225	2,661	737	-	3,581	876	1,452	30	628	7,203	23,938
Percent of Total	27.3	0.9	11.1	3.1	-	15.0	3.7	6.1	0.1	2.6	30.1	100.0
Nesbitt												
Acres	19,075	54	5,397	3,450	-	15,032	2,445	3,391	-	15	16,696	65,555
Percent of Total	29.1	0.1	8.2	5.3	-	22.9	3.7	5.2	-	0.0	25.5	100.0
Ninga												
Acres	14,176	-	5,223	2,355	-	11,882	2,938	3,964	283	40	11,435	52,296
Percent of Total	27.1	-	10.0	4.5	-	22.7	5.6	7.6	0.5	0.1	21.9	100.0

TABLE 16. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE, BY DELIVERY POINT, 1966-67 (Continued)

Delivery Point	Wheat	Durum	Oats	Barley	Rye	Summer Fallow	Forage Crops	Flaxseed	Rapeseed	Other Crops	Unimproved Land	Total
Clearwater												
Acres	11,354	135	5,673	1,452	44	7,370	3,330	4,539	70	68	10,765	44,800
Percent of Total	25.3	0.3	12.7	3.3	0.0	16.5	7.4	10.1	0.2	0.2	24.0	100.0
Margaret												
Acres	9,969	133	2,253	1,951	80	7,816	1,062	3,298	150	25	5,596	32,333
Percent of Total	30.8	0.4	7.0	6.0	0.2	24.2	3.3	10.2	0.5	0.1	17.3	100.0
Mather												
Acres	12,962	-	4,796	2,017	40	9,100	1,239	6,462	521	243	11,652	49,032
Percent of Total	26.4	-	9.8	4.1	0.0	18.6	2.5	13.2	1.1	0.5	23.8	100.0
La Riviere												
Acres	12,886	-	4,829	3,799	-	8,175	2,776	2,344	415	914	14,434	50,572
Percent of Total	25.5	-	9.6	7.5	-	16.5	5.5	4.6	0.8	1.8	28.5	100.0
Dunrea												
Acres	15,231	-	5,010	2,601	449	12,527	1,657	6,576	660	100	14,804	59,615
Percent of Total	25.5	-	8.4	4.4	0.8	21.0	2.8	11.0	1.1	0.2	24.8	100.0
Mariapolis												
Acres	8,011	-	2,322	903	20	7,200	1,903	968	-	-	5,133	26,510
Percent of Total	30.2	-	8.8	3.4	0.1	27.1	7.2	3.7	-	-	19.5	100.0
Ninette												
Acres	6,877	60	2,876	556	110	5,287	1,836	1,732	135	401	12,872	32,742
Percent of Total	21.0	0.2	8.8	1.7	0.3	16.1	5.6	5.3	0.4	1.2	39.3	100.0
Towns												
Cypress River												
Acres	17,720	125	8,221	3,614	895	14,097	7,189	2,881	193	573	15,872	71,380
Percent of Total	24.9	0.2	11.5	5.1	1.3	19.7	10.1	4.0	0.3	0.8	22.2	100.0
Belmont												
Acres	15,719	-	9,132	3,847	489	12,656	4,508	2,237	40	402	25,913	74,943
Percent of Total	21.0	-	12.2	5.1	0.7	16.9	6.0	3.0	0.0	0.5	34.6	100.0
Swan Lake												
Acres	18,578	-	6,331	2,217	245	13,433	3,090	3,425	-	296	10,450	58,065
Percent of Total	32.0	-	10.9	3.8	0.4	23.2	5.3	5.9	-	0.5	18.0	100.0
Holland												
Acres	17,220	36	7,662	2,080	1,273	13,530	7,021	2,949	212	412	21,685	74,080
Percent of Total	23.2	0.0	10.3	2.8	1.7	18.3	9.5	4.0	0.3	0.6	29.3	100.0
Cartwright												
Acres	19,291	247	8,013	2,711	-	14,466	3,216	6,613	690	2,047	19,039	76,335
Percent of Total	25.3	0.3	10.5	3.5	-	19.0	4.2	8.7	0.9	2.7	24.9	100.0

TABLE 16. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE, BY DELIVERY POINT, 1966-67 (Concluded)

Delivery Point	Wheat	Durum	Oats	Barley	Rye	Summer Fallow	Forage Crops	Flaxseed	Rapeseed	Other Crops	Unimproved Land	Total
Wawanesa-Treesbank Acres	14,390	65	5,136	1,308	1,276	11,100	5,877	2,656	-	348	17,825	59,981
Percent of Total	24.0	0.1	8.6	2.2	2.1	18.5	9.8	4.4	-	0.6	29.7	100.0
Crystal City Acres	14,839	60	6,175	4,522	-	12,251	2,887	7,891	-	95	6,255	54,975
Percent of Total	27.0	0.1	11.2	8.2	-	22.3	5.2	14.4	-	0.2	11.4	100.0
Baldur Acres	13,518	8	7,534	3,748	235	12,540	2,891	1,393	-	158	22,503	64,528
Percent of Total	20.9	0.0	11.7	5.8	0.4	19.4	4.5	2.2	-	0.2	34.9	100.0
Greater Towns Treherne Acres	19,660	-	9,212	1,126	2,261	15,377	8,563	4,748	255	113	17,898	79,213
Percent of Total	24.8	-	11.6	1.4	2.9	19.4	10.8	6.0	0.3	0.2	22.6	100.0
Glenboro Acres	18,062	75	11,636	2,447	3,513	18,622	8,511	2,903	196	450	31,012	97,427
Percent of Total	18.6	0.0	11.9	2.5	3.6	19.1	8.7	3.0	0.2	0.5	31.9	100.0
Pilot Mound Acres	16,408	-	7,183	4,488	-	12,914	5,445	4,973	178	365	9,816	61,770
Percent of Total	26.5	-	11.6	7.3	-	20.9	8.8	8.1	0.3	0.6	15.9	100.0
Killarney Acres	46,265	-	16,999	5,977	137	34,278	8,211	13,652	324	557	52,033	178,433
Percent of Total	25.9	-	9.5	3.4	0.1	19.2	4.6	7.6	0.2	0.3	29.3	100.0
Study Area Total Acres	402,368	1,313	164,263	68,722	12,418	311,286	99,562	99,372	4,756	9,937	442,065	1,586,152
Percent of Total	25.4	0.0	10.4	4.3	0.8	19.6	6.3	6.3	0.3	0.6	26.0	100.0

Source: Canadian Wheat Board.

TABLE 17. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE, BY DELIVERY POINT, 1969-70

Delivery Point	Wheat	Durum	Oats	Barley	Rye	Summer Fallow	Forage Crops	Flaxseed	Rapeseed	Other Crops	Unimproved Land	Total
<u>Too Small To Classify</u>												
<u>Rhodes</u>												
Acres	Closed											
Percent of Total												
<u>Hamlets</u>												
<u>Indian Springs</u>												
Acres	5,140	387	4,163	1,062	-	3,884	2,111	434	11	397	3,018	20,607
Percent of Total	24.9	1.9	20.2	5.2	0.0	18.9	10.2	2.1	0.1	1.9	14.6	100.0
<u>Wood Bay</u>												
Acres	2,229	35	1,677	2,407	-	1,990	1,139	1,007	-	65	3,991	14,540
Percent of Total	15.3	0.2	11.5	16.6	0.0	13.7	7.8	6.9	0.0	0.5	27.5	100.0
<u>Landseer</u>												
Acres	2,640	-	2,250	1,220	35	2,680	1,336	429	-	65	3,285	13,940
Percent of Total	18.9	0.0	16.1	8.8	0.2	19.2	9.6	3.1	0.0	0.5	23.6	100.0
<u>Greenway</u>												
Acres	3,629	-	2,100	1,135	137	3,045	1,060	616	-	83	3,979	15,784
Percent of Total	23.0	0.0	13.3	7.2	0.9	19.3	6.7	3.9	0.0	0.5	25.2	100.0
<u>Hilton</u>												
Acres	Closed											
Percent of Total												
<u>Neelin</u>												
Acres	10,310	305	4,566	1,646	200	9,994	1,557	2,158	-	68	16,122	46,926
Percent of Total	22.0	0.7	9.7	3.5	0.4	21.3	3.3	4.6	0.0	0.1	34.4	100.0
<u>Glenora</u>												
Acres	9,289	101	4,287	1,573	260	8,214	1,822	1,758	60	10	8,253	35,627
Percent of Total	26.1	0.3	12.0	4.4	0.7	23.1	5.1	4.9	0.2	0.0	23.2	100.0
<u>Rounthwaite</u>												
Acres	9,355	520	4,058	6,354	1,817	11,217	1,160	1,907	185	262	8,126	44,961
Percent of Total	20.8	1.2	9.0	14.1	4.0	25.0	2.6	4.2	0.4	0.6	18.1	100.0
<u>Villages</u>												
<u>Holmfild</u>												
Acres	4,552	368	2,662	1,121	-	4,917	848	1,657	-	75	6,293	22,493
Percent of Total	20.2	1.6	11.8	5.0	0.0	21.9	3.8	7.4	0.0	0.3	28.0	100.0
<u>Nesbitt</u>												
Acres	12,948	1,254	6,453	5,434	-	14,790	1,777	3,871	73	70	14,223	60,393
Percent of Total	21.3	2.1	10.7	9.0	0.0	24.5	2.3	6.4	0.1	0.1	23.5	100.0
<u>Ninga</u>												
Acres	11,315	237	5,308	4,309	153	12,865	2,820	4,204	589	105	11,579	53,487
Percent of Total	21.2	0.4	9.0	8.1	0.3	24.0	5.3	7.9	1.1	0.2	21.6	100.0

TABLE 17. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE, BY DELIVERY POINT, 1969-70 (continued)

Delivery Point	Wheat	Durum	Oats	Barley	Rye	Summer Fallow	Forage Crops	Flaxseed	Rapeseed	Other Crops	Unimproved Land	Total
Clearwater												
Acres	7,164	317	5,694	3,979	36	8,459	2,323	4,001	257	201	9,172	41,603
Percent of Total	17.2	0.8	13.7	9.6	0.1	20.3	5.6	9.6	0.6	0.5	22.0	100.0
Margaret												
Acres	7,554	420	2,439	3,109	290	8,312	748	3,523	870	75	5,241	32,581
Percent of Total	23.2	1.3	7.5	9.5	0.9	25.5	2.3	10.8	2.7	0.2	16.1	100.0
Mather												
Acres	8,750	555	5,646	4,031	-	11,886	1,019	4,835	331	88	10,977	48,118
Percent of Total	18.2	1.2	11.7	8.4	0.0	24.7	2.1	10.0	0.7	0.2	22.8	100.0
La Riviere												
Acres	9,884	215	4,623	5,852	40	12,691	2,191	2,296	1,261	371	13,958	53,382
Percent of Total	18.5	0.4	8.6	11.0	0.1	23.8	4.1	4.3	2.4	0.7	26.1	100.0
Dunrea												
Acres	12,839	500	5,937	7,249	647	12,648	1,953	6,234	702	140	14,336	63,185
Percent of Total	20.3	0.8	9.4	11.5	1.0	20.0	3.1	9.9	1.1	0.2	22.7	100.0
Mariapolis												
Acres	7,308	703	3,173	1,570	46	8,205	1,699	583	30	40	4,474	27,831
Percent of Total	26.3	2.5	11.4	5.6	0.2	29.5	6.1	2.1	0.1	0.1	16.1	100.0
Ninette												
Acres	5,852	440	3,184	1,929	102	5,540	1,539	1,668	189	63	11,924	32,430
Percent of Total	18.0	1.4	9.8	6.0	0.3	17.1	4.7	5.1	0.6	0.2	36.8	100.0
Towns												
Cypress River												
Acres	13,182	699	9,369	6,979	1,269	16,107	7,729	2,655	341	649	14,558	73,537
Percent of Total	17.9	1.0	12.7	9.5	1.7	21.9	10.5	3.6	0.5	0.9	19.8	100.0
Belmont												
Acres	13,119	672	9,895	3,695	336	14,277	4,405	2,744	80	227	24,347	73,797
Percent of Total	17.8	0.9	13.4	5.0	0.5	19.3	6.0	3.7	0.1	0.3	33.0	100.0
Swan Lake												
Acres	15,508	675	8,322	5,454	120	15,527	4,384	2,566	115	555	10,283	63,509
Percent of Total	24.4	1.1	13.1	8.6	0.2	24.4	6.9	4.0	0.2	0.9	16.2	100.0
Holland												
Acres	13,292	372	9,769	3,457	1,148	15,238	6,890	3,398	131	619	20,277	74,591
Percent of Total	17.8	0.5	13.1	4.6	1.6	20.4	9.2	4.6	0.2	0.8	27.2	100.0
Cartwright												
Acres	15,605	1,074	8,380	3,115	-	19,304	3,268	6,646	571	165	16,648	74,776
Percent of Total	20.9	1.4	11.2	4.2	0.0	25.8	4.4	8.9	0.7	0.2	22.3	100.0

TABLE 17. GRAIN FARM ACREAGE DEVOTED TO SPECIFIED USE, BY DELIVERY POINT, 1969-70 (Concluded)

Delivery Point	Wheat	Durum	Oats	Barley	Rye	Summer Fallow	Forage Crops	Flaxseed	Rapeseed	Other Crops	Unimproved Land	Total
Wawanesa-Treesbank												
Acres	11,158	681	6,917	3,780	579	12,859	6,851	3,026	-	325	18,303	64,779
Percent of Total	17.7	1.0	10.7	5.8	0.9	19.8	10.6	4.7	0.0	0.5	28.3	100.0
Crystal City												
Acres	11,286	90	8,053	9,010	-	13,292	2,564	9,037	295	245	5,643	59,515
Percent of Total	19.0	0.2	13.5	15.1	0.0	22.3	4.3	15.2	0.5	0.4	9.5	100.0
Baldur												
Acres	12,241	511	7,468	6,171	47	13,723	3,133	965	23	292	20,555	65,129
Percent of Total	18.8	0.8	11.5	9.5	0.1	21.1	4.8	1.5	0.0	0.4	31.5	100.0
Greater Towns												
Treherne												
Acres	17,312	442	12,157	4,384	2,132	18,076	9,053	3,077	178	617	17,380	84,808
Percent of Total	20.4	0.5	14.4	5.2	2.5	21.3	10.7	3.6	0.2	0.7	20.5	100.0
Glenboro												
Acres	15,137	465	11,797	5,500	3,825	17,835	8,743	2,381	10	440	28,679	94,812
Percent of Total	16.0	0.5	12.4	5.8	4.0	18.8	9.2	2.5	0.0	0.5	30.3	100.0
Pilot Mound												
Acres	10,892	1,061	7,396	9,175	-	12,695	4,184	3,127	210	50	7,820	56,900 ⁵²
Percent of Total	19.1	1.9	13.0	16.1	0.0	22.3	7.9	5.5	0.4	0.1	13.7	100.0
Killarney												
Acres	40,353	1,458	20,533	11,214	193	41,451	7,769	15,555	511	362	46,336	185,735
Percent of Total	21.7	0.8	11.1	6.0	0.1	22.3	4.2	8.4	0.3	0.2	24.9	100.0
Study Area Total												
Acres	320,046	14,557	188,276	125,914	13,412	351,711	95,975	96,358	7,023	6,724	379,780	1,599,776
Percent of Total	20.0	0.9	11.8	7.9	0.8	22.0	6.0	6.0	0.5	0.4	23.7	100.0

Source: Canadian Wheat Board.

Crop Yields in the Study Area

Table 18 shows the six year average yield of wheat, oats, barley, rye, and flaxseed in the study area for the years 1962 and 1967.

Rounthwaite, Wood Bay and Swan Lake recorded the highest six year average yields of wheat in the area - 31, 28 and 28 bushels per acre, respectively. The yields at Rounthwaite were more variable than at the other two points, changing from 35 to 20 bushels whereas at Wood Bay and Swan Lake the high and low yield ranged from 30 to 25 bushels and 30 to 20 bushels, respectively.

The reader is referred to Soil Capability for Agriculture, Part II, for a discussion on crop yields and soil capability.

Coarse grains are important in the region, and some good yields have been obtained. For instance, Wood Bay has an average yield of 53 bushels of oats and 40 bushels of barley.

TABLE 18. SIX YEAR AVERAGE YIELD OF WHEAT, OATS, BARLEY, RYE AND FLAXSEED, BY DELIVERY POINT, 1962-67

Delivery Point	Wheat			Oats			Barley			Rye			Flaxseed		
	High	Low	6 Year Average	High	Low	6 Year Average	High	Low	6 Year Average	High	Low	6 Year Average	High	Low	6 Year Average
<u>Too Small To Classify</u>															
<u>Rhodes</u>	30	20	10	26 ^{1/}	55	40	15	49 ^{1/}	40	28	12	35 ^{1/}	na	na	na
<u>Hamlets</u>															
Indian Springs	30	20	10	26	60	30	30	48	60	15	45	36	25	15	10
Wood Bay	30	25	5	28	70	35	35	53	60	25	35	40	na	na	na
Landseer	30	15	15	23	50	35	15	42	35	20	15	28	30	15	15
Greenway	27	20	7	24 ^{2/}	70	30	40	53 ^{2/}	50	20	30	33 ^{2/}	27	20	7
Hilton	30	20	10	25 ^{2/}	60	45	15	54 ^{2/}	40	30	10	33 ^{2/}	30	12	18
Neelin	25	10	15	19	70	20	50	35	30	8	22	16	35	10	25
Glenora	34	16	18	23	65	19	46	45	40	23	17	32	35	10	25
Rounthwaite	35	20	15	31	60	40	20	51	45	30	15	38	20	10	10
<u>Villages</u>															
Holmfild	25	18	7	22 ^{2/}	50	35	15	45 ^{2/}	40	20	20	28 ^{2/}	na	na	na
Nesbitt	25	20	5	23	50	30	20	43	40	25	15	31	na	na	na
Ninga	30	11	10	24	75	14	61	52	45	8	37	31	na	na	na
Clearwater	30	25	5	27	50	35	15	44	40	10	30	27	25	18	7
Marraret	25	16	9	20	50	35	15	41	35	20	15	28	22	10	12
Mather	25	20	5	24	50	30	20	45	40	30	10	36	na	na	na
La Riviere	30	20	10	27	60	50	10	52	40	25	15	34	na	na	na
Dunrea	25	17	8	22	60	30	30	48	40	30	10	38	23	12	11
Marlapolis	34	12	22	26	50	30	20	37	35	20	15	20	30	20	10
Ninette	37	15	12	21	50	25	25	40	40	20	20	29	22	10	12
<u>Towns</u>															
Cypress River	25	12	13	23	50	30	20	43	50	20	30	36	35	10	25
Belmont	25	15	10	21	50	22	28	39	30	20	10	26	30	18	12
Swan Lake	30	20	10	28	60	30	30	43	40	15	25	27	30	20	10
Holland	32	19	13	27	50	35	15	43	35	25	10	29	30	20	10
Cartwright	25	12	13	21	55	30	25	45	30	20	10	25	23	15	8
Wawanesa-Treesbank	35	22	13	27	53	30	23	46	40	30	10	36	25	12	13
Crystal City	22	10	12	17	50	20	30	38	40	22	18	34	25	15	10
Baldur	26	18	8	23	70	35	35	48	50	15	35	30	20	20	0
<u>Greater Towns</u>															
Treherne	30	18	12	25	65	30	25	43	35	20	15	28	30	15	15
Glenboro	25	15	10	22	70	33	37	49	40	25	15	34	25	15	10
Pilot Mound	30	15	15	25	50	25	25	39	38	18	20	27	na	na	na
Killarney	28	18	10	25	52	30	22	43	45	20	25	31	35	25	10

1/ Five Year Average

2/ Four Year Average

na: Not Available

3/ Three Year Average

Source: Canadian Wheat Board.

Protein Content

Protein content has become an integral term in the marketing of wheat. With improved technology in the milling and baking industries it is becoming necessary in some markets to guarantee protein levels as well as grades of wheat. Many new flour mills and bakeries operate on a computerized system of adding inputs and the argument is, that protein content beyond certain narrow tolerances necessitates a reprogramming of these operations and costly stoppages in production of flour. Currently, the United States and Australia are guaranteeing minimum protein levels. Canada is in the process of setting up such standards and should by August 1, 1971 be segregating new No. 1 C.W. wheat car lots arriving at the terminal elevators.

The top grades of Western Canadian Wheat have over the years commanded a premium in world markets, in the main because of the quality of the protein. Unfortunately, a mere percentage designation tells nothing about the quality which appears to be based to genetic-ecological factors of wheat production. Thus a 13.1 percent protein wheat of a certain variety from a certain production area could be superior to a 13.9 percent protein wheat of a different variety produced in another country.

The protein percentage of Canadian wheat is highly variable from region to region and from year to year. This is well illustrated in Table 19.

For the study area as a whole, the average protein content varied from 14.0 percent in 1963 to 13.3 percent in 1970. The range varied from 11.5 to 17.2 percent in 1963 and from 11.4 to 17.3 percent in 1970.

TABLE 19. PROTEIN CONTENT OF HARD RED SPRING WHEAT, BY DELIVERY POINT, 1964 TO 1970

Delivery Point	1964		1965		1966		1967		1968		1969		1970	
	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range
	Percent		Percent		Percent		Percent		Percent		Percent		Percent	
Too Small To Classify														
Rhodes	14.7	14.5-14.9	-	-	13.4	12.2-14.6	-	-	-	-	-	-	-	-
Hamlets														
Indian Springs	13.5	12.8-15.3	14.0	11.2-16.7	-	-	13.2	12.8-13.5	12.4	11.4-13.5	-	-	-	-
Wood Bay	13.4	11.2-15.8	13.5	12.6-14.6	14.0	13.7-14.4	13.6	12.5-14.8	-	-	13.0	12.1-13.7	12.4	-
Landseer	13.7	13.7-14.0	-	-	13.5	13.1-13.9	14.7	13.9-15.8	13.6	12.9-14.2	-	-	12.8	11.0-14.4
Greenway	14.2	13.3-14.5	13.0	12.7-13.2	13.2	11.8-13.9	13.6	11.8-16.3	-	-	-	-	13.7	-
Hilton	14.5	-	-	-	-	-	-	-	14.4	12.6-15.1	12.6	9.9-14.2	13.3	11.4-14.4
Neelin	14.1	12.7-15.7	13.8	12.7-15.4	13.4	12.8-14.4	12.9	11.7-14.4	-	-	-	-	-	-
Treesbank	14.6	14.2-15.0	-	-	-	-	-	-	-	-	-	-	-	-
Glenora	12.6	11.9-13.2	12.8	11.6-13.5	14.2	12.7-15.3	14.3	10.9-17.1	13.9	11.7-15.7	13.3	11.6-15.6	14.1	12.2-17.3
Rounthwaite	14.8	14.1-15.3	13.7	13.5-13.9	-	-	13.6	13.0-14.5	13.1	11.4-14.3	13.4	12.2-14.4	12.7	11.4-13.4
Villages														
Nesbitt	11.5	10.8-15.1	13.0	11.7-14.6	12.5	11.8-13.2	12.2	10.0-14.9	-	-	-	-	13.1	11.9-13.8
Ninga	14.2	13.0-15.0	12.9	11.7-14.0	13.3	12.6-14.1	12.3	11.6-13.1	14.1	13.8-14.4	14.0	13.5-14.7	13.4	-
Clearwater	14.0	13.2-15.1	13.0	12.5-13.4	14.8	14.1-15.6	13.7	12.1-15.6	-	-	14.1	13.0-14.7	12.9	-
Margaret	14.2	13.2-15.2	-	-	13.9	13.1-14.3	12.9	12.4-13.1	13.4	12.3-14.9	13.8	13.1-14.5	13.2	12.1-14.3
Mather	13.9	13.0-14.8	14.4	13.3-15.1	13.6	12.8-15.0	13.7	11.4-15.2	-	-	-	-	13.3	12.7-13.9
La Riviere	14.2	13.1-15.5	14.2	13.2-15.5	12.9	10.5-14.3	12.4	11.5-14.1	13.0	11.9-13.7	-	-	-	11.8-15.7
Dunrea	-	-	13.7	13.4-14.1	13.1	12.2-14.0	14.3	12.5-18.0	14.2	13.5-14.9	14.2	13.4-14.6	13.0	-
Marionopolis	13.6	13.1-14.6	12.6	11.4-14.6	12.6	11.7-13.3	13.5	-	-	-	14.7	14.6-14.8	14.9	-
Ninette	13.4	12.7-14.1	-	-	13.8	13.0-15.0	15.3	13.6-17.1	14.3	13.4-16.0	13.5	12.5-14.4	13.6	11.8-14.6
Towns														
Cypress River	15.1	14.4-15.9	14.4	13.8-14.9	13.2	12.5-13.9	12.4	11.2-13.3	12.9	11.5-14.5	13.0	12.9-13.0	12.8	-
Belmont	14.3	12.5-15.3	-	-	13.4	12.4-14.6	12.6	10.1-15.5	14.1	13.3-15.6	-	-	12.2	-
Swan Lake	13.4	11.9-15.2	12.8	11.9-13.9	11.9	11.3-13.6	14.4	14.1-14.6	-	-	12.0	10.6-13.2	12.7	11.6-13.8
Holland	14.0	13.4-14.3	13.2	11.9-14.0	14.0	14.0-14.1	13.4	12.9-14.2	13.8	12.3-15.6	13.6	13.4-13.8	14.3	-
Cartwright	14.2	13.5-14.7	13.8	12.9-14.8	13.6	13.3-13.9	13.5	12.3-14.7	13.6	12.6-14.7	13.7	13.3-14.1	13.2	-
Wawanesa	13.7	13.5-14.2	-	-	12.2	12.6-13.2	13.0	11.4-14.7	13.0	12.7-13.6	13.6	12.7-15.0	14.2	13.4-15.1
Crystal City	12.6	11.7-13.6	-	-	12.6	11.0-14.2	-	-	15.4	15.3-15.4	-	-	13.3	12.0-15.0
Baldur	14.0	13.4-14.6	13.2	12.1-14.0	13.7	12.3-14.7	14.0	12.0-15.3	-	-	13.7	12.8-15.3	13.3	12.0-14.3
Greater Towns														
Treherne	13.6	13.0-14.3	14.0	13.8-14.2	15.0	15.0-15.1	13.4	11.8-15.0	13.7	12.1-15.0	12.3	11.5-13.1	13.2	11.9-14.7
Pilot Mound	14.2	13.0-14.4	13.7	13.0-14.0	12.0	11.7-12.3	14.4	12.7-16.1	13.8	12.6-15.6	15.4	15.3-15.4	12.3	-
Killarney	13.9	13.2-14.3	14.8	13.6-16.1	-	-	13.1	12.5-13.8	12.4	11.0-14.8	14.6	13.4-15.5	14.2	-
Study Area Total	13.1	12.2-15.8	13.5	11.2-16.7	13.2	10.5-15.6	13.0	10.0-18.0	13.6	11.0-16.6	13.5	9.9-15.6	13.3	11.1-14.0
Province of Manitoba	14.0	13.3-17.5	13.2	9.4-19.2	13.0	9.4-16.6	12.9	9.1-18.5	13.4	9.3-17.5	13.5	9.5-17.1	13.3	9.7-17.3

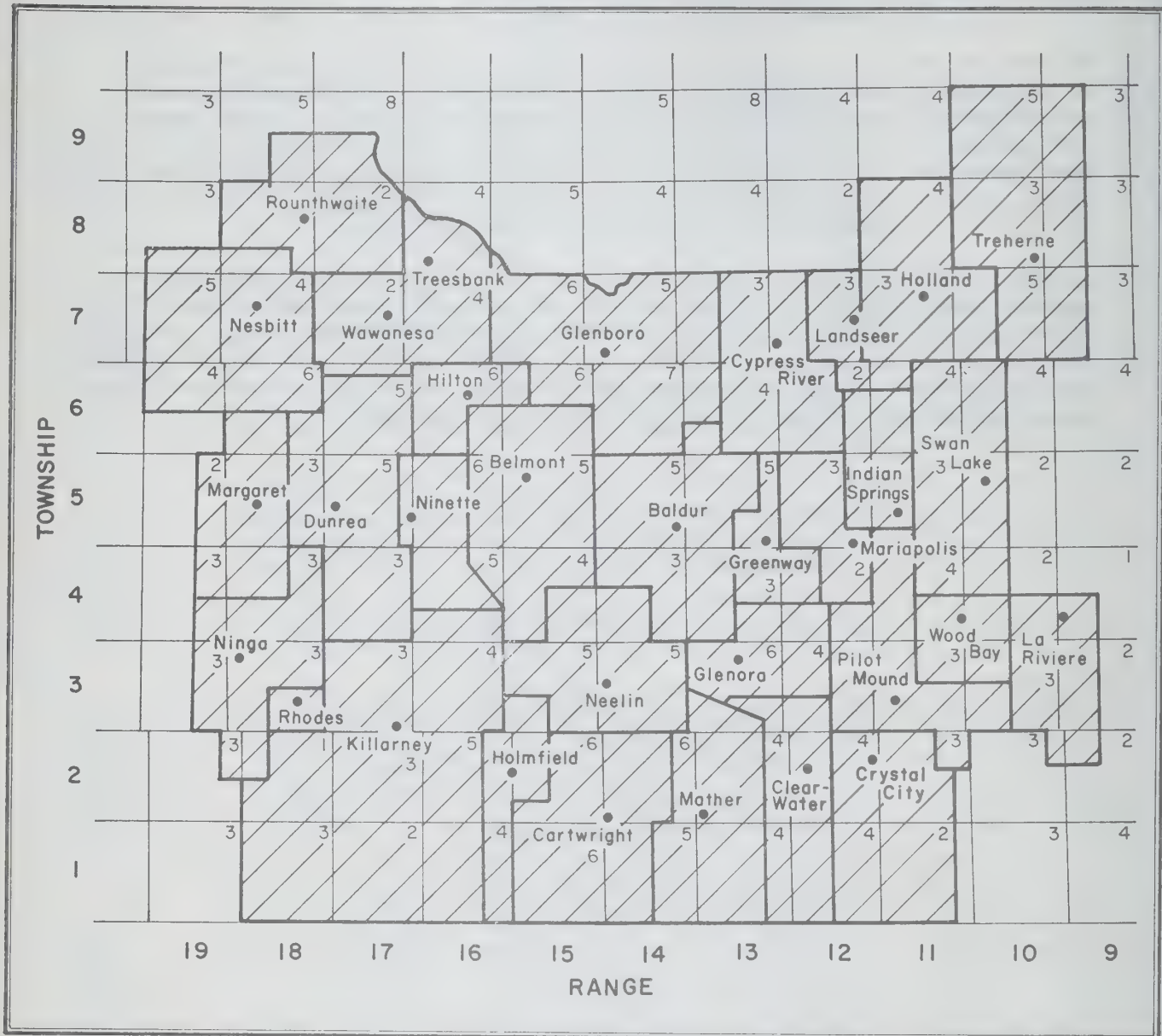
Source: Board of Grain Commissioners.

Prairie Farm Assistance Act Payment 1939-1967

The map following (Figure C) shows a rough outline of the land tributary to each of the delivery points in the study area. The figures represent the number of times PFAA payments were made to producers in the 29 year period from 1939 to 1967. Holland, for example, has a tributary area of four townships, in which payments were made four, three, four and five times, respectively. This does not mean that all producers in those townships were paid this number of times, but that some were.

In the 29 year period, in the study area, the maximum number of times that payments were made to producers in any one township, was eight times. This was made in a township near the delivery point of Rounthwaite. By examining the map, one will gain an insight into the frequency of crop failure within the study area. Compared to many other regions in the Prairies, the Killarney grain-growing region has a good record in this respect.

PRAIRIE FARM ASSISTANCE ACT PAYMENTS 1939 - 1967



Farm Size

The average size of farm in the study area was generally slightly larger in 1966-67 than in 1962-63, increasing from a mean of 483 acres to 530 acres.

Most delivery points in the study area had slight increases in average or mean farm size. Holmfield had the largest increase, from a mean of 552 acres in 1962-63 to 683 acres in 1966-67. The only decrease in farm size occurred at Wood Bay.

Since the total number of grain farms in the study declined, from 3,251 in 1962-63 to 2,992 in 1966-67, it is apparent that this area is following the general prairie trend of fewer, but larger, farms.

Because the average farm size can change substantially by a large shift at either end of the size scale, the median size is perhaps a better indicator of farm size changes. The median size has half the number of farms smaller than it, and half larger. For this report, the farms have been grouped to 160 acres intervals and the group is denoted by the mid-point of its interval (Table 20). Of the 31 delivery points taken into consideration in this table, five had a change in median size over the six year period. For the area as a whole, the median size remained constant at 480 acres.

Within size groups, the greatest decrease in number of farms between 1962-63 and 1966-67 was in the 241 to 400 acres class. Decreases in the number of farms were general in the three groups, 1 to 240, 241 to 400, and 401 to 560 acres. Beyond this latter group, an increase in the number of farms in each succeeding group was noted.

TABLE 20. AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1966-67

Delivery Point	1962-63	1966-67
<u>Too Small To Classify</u>		
<u>Rhodes</u>		
Number of Farms	15	12
	- acres -	
Mean	516	576
Median	480	480
Modal Group	n.a.	n.a.
Maximum	800	960
Minimum	320	320
<u>Hamlets</u>		
<u>Indian Springs</u>		
Number of Farms	60	53
	- acres -	
Mean	348	300
Median	320	320
Modal Group	241-400 (320)	241-400 (320)
Maximum	1,275	1,120
Minimum	70	160
<u>Wood Bay</u>		
Number of Farms	42	37
	- acres -	
Mean	433	416
Median	320	320
Modal Group	241-400 (320)	241-400 (320)
Maximum	960	960
Minimum	160	160
<u>Landseer</u>		
Number of Farms	40	33
	- acres -	
Mean	474	515
Median	480	480
Modal Group	241-400 (320)	241-400 (320)
Maximum	1,200	1,200
Minimum	160	160
<u>Greenway</u>		
Number of Farms	40	30
	- acres -	
Mean	473	489
Median	480	480
Modal Group	401-560 (480)	401-560 (480)
Maximum	1,120	1,120
Minimum	80	80
<u>Hilton</u>		
Number of Farms	31	Closed
	- acres -	
Mean	570	
Median	320	
Modal Group	561-720 (640)	
Maximum	1,702	
Minimum	100	
<u>Neelin</u>		
Number of Farms	85	82
	- acres -	
Mean	494	500
Median	480	480
Modal Group	241-400 (320)	241-400 (320)
Maximum	1,760	1,760
Minimum	30	30

TABLE 20. AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1966-67 (Continued)

Delivery Point	1962-63	1966-67
Glenora		
Number of Farms	88	73
	- acres -	
Mean	446	470
Median	320	320
Modal Group	241-400 (320)	241-400 (320)
Maximum	1,760	1,440
Minimum	30	160
Rounthwaite		
Number of Farms	86	79
	- acres -	
Mean	489	543
Median	480	480
Modal Group	241-400 (320)	401-460 (480)
Maximum	1,760	1,760
Minimum	160	160
Villages		
Holmfield		
Number of Farms	45	36
	- acres -	
Mean	552	682
Median	480	610
Modal Group	241-400 (320)	561-720 (610)
Maximum	2,240	2,400
Minimum	160	165
Masbitt		
Number of Farms	124	121
	- acres -	
Mean	504	558
Median	480	480
Modal Group	241-400 (320)	241-400 (320)
Maximum	1,640	1,640
Minimum	160	160
Ninga		
Number of Farms	109	98
	- acres -	
Mean	489	525
Median	480	480
Modal Group	241-400 (320)	241-400 (320)
Maximum	1,110	1,310
Minimum	90	90
Clearwater		
Number of Farms	83	76
	- acres -	
Mean	552	595
Median	480	480
Modal Group	241-400 (320)	241-400 (320)
Maximum	2,980	2,350
Minimum	160	80
Margaret		
Number of Farms	69	60
	- acres -	
Mean	527	542
Median	480	480
Modal Group	401-560 (480)	241-400 (320)
Maximum	1,280	1,280
Minimum	160	160

TABLE 20. AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1966-67 (Continued)

Delivery Point	1962-63	1966-67
Mather		
Number of Farms	94	85
	- acres -	
Mean	531	574
Median	480	480
Modal Group	401-560 (480)	401-560 (480)
Maximum	1,680	1,600
Minimum	160	160
La Riviere		
Number of Farms	87	87
	- acres -	
Mean	534	569
Median	480	480
Modal Group	241-400 (320)	241-400 (320)
Maximum	1,540	1,670
Minimum	20	33
Dunrea		
Number of Farms	97	89
	- acres -	
Mean	616	682
Median	480	640
Modal Group	241-400 (320)	561-720 (640)
Maximum	1,980	2,640
Minimum	160	160
Mariapolis		
Number of Farms	52	62
	- acres -	
Mean	429	441
Median	320	320
Modal Group	241-400 (320)	241-400 (320)
Maximum	1,040	960
Minimum	160	10
Ninette		
Number of Farms	69	58
	- acres -	
Mean	445	530
Median	320	480
Modal Group	241-400 (320)	561-720 (640)
Maximum	1,120	1,702
Minimum	8	8
Towns		
Cypress River		
Number of Farms	147	133
	- acres -	
Mean	474	523
Median	480	480
Modal Group	241-400 (320)	241-400 (320)
Maximum	1,600	1,440
Minimum	150	60
Belmont		
Number of Farms	136	136
	- acres -	
Mean	496	555
Median	480	480
Modal Group	241-400 (320)	401-560 (480)
Maximum	2,000	2,400
Minimum	160	100

TABLE 20. AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1966-67 (Continued)

Delivery Point	1962-63		1966-67
<hr/>			
Swan Lake			
Number of Farms	154		136
		- acres -	
Mean	384		425
Median	320		320
Modal Group	241-400 (320)		241-400 (320)
Maximum	1,660		1,640
Minimum	22		50
Holland			
Number of Farms	158		148
		- acres -	
Mean	455		493
Median	320		480
Modal Group	241-400 (320)		241-400 (320)
Maximum	1,800		1,640
Minimum	148		70
Cartwright			
Number of Farms	150		138
		- acres -	
Mean	498		560
Median	480		480
Modal Group	241-400 (320)		401-560 (480)
Maximum	2,080		2,080
Minimum	73		80
Wawanesa-Treesbank			
Number of Farms	87		89
		- acres -	
Mean	641		662
Median	430		480
Modal Group	401-560 (480)		401-560 (480)
Maximum	1,600		4,230
Minimum	160		160
Crystal City			
Number of Farms	102		105
		- acres -	
Mean	513		540
Median	480		480
Modal Group	241-400 (320)		241-400 (320)
Maximum	1,760		1,760
Minimum	110		110
Baldur			
Number of Farms	133		125
		- acres -	
Mean	491		525
Median	480		480
Modal Group	241-400 (320)		241-400 (320)
Maximum	1,440		1,550
Minimum	80		80
Greater Towns			
Treherne			
Number of Farms	205		180
		- acres -	
Mean	376		443
Median	320		320
Modal Group	241-400 (320)		241-400 (320)
Maximum	1,940		2,100
Minimum	65		27

TABLE 20. AVERAGE ACREAGE OF GRAIN FARMS IN THE STUDY AREA, 1962-63 AND 1966-67 (Concluded)

Delivery Point	1962-63	1966-67
Glenboro		
Number of Farms	191	180
	- acres -	
Mean	487	519
Median	480	490
Modal Group	241-400 (320)	401-560 (480)
Maximum	1,596	3,562
Minimum	23	50
Pilot Mound		
Number of Farms	127	124
	- acres -	
Mean	464	507
Median	320	480
Modal Group	241-400 (320)	241-400 (320)
Maximum	2,040	2,200
Minimum	40	60
Killarney		
Number of Farms	351	327
	- acres -	
Mean	500	548
Median	480	480
Modal Group	241-400 (320)	241-400 (320)
Maximum	1,440	1,765
Minimum	80	160
Study Area Total		
Number of Farms	3,251	2,992
	- acres -	
Mean	483	530
Median	480	480
Modal Group	241-400 (320)	241-400 (320)
Maximum	2,080	4,230
Minimum	8	8

n.a. - not applicable.

Source: Canadian Wheat Board.

TABLE 21. DISTRIBUTION OF GRAIN FARM SIZES, CROP YEARS, 1962-63 AND 1966-67

Size Group (Acres)	1962-63		1966-67	
	No. of Farms	Percent of Total	No. of Farms	Percent of Total
1 - 240	411	12.7	323	10.8
241 - 400	1,083	33.3	866	28.9
401 - 560	791	24.3	697	23.3
561 - 720	520	16.0	566	18.9
721 - 880	218	6.7	254	8.5
881 - 1040	108	3.3	110	3.7
1041 - 1200	54	1.7	69	2.3
1201 - 1360	30	.9	45	1.5
1361 - 1520	11	.3	23	.8
1521 - 1780	15	.5	28	.9
1781 and over	10	.3	11	.4
Study Area Total	3,251	100.0	2,992	100.0

Source: Canadian Wheat Board.

Land Tenure

The general trend between 1962-67 is for a greater proportion of land to be owned by the operator, rather than rented. For the study, the proportion of owned land increased from 73.7 percent in 1962-63 to 78.9 percent in 1966-67. Some reasons for the operators increasing their land ownership may be the increased land sales activity during this period and the producers' expectations of rising land values. The size of the elevator service centre appears to have no significant effect upon the distribution of the land between ownership and rental basis.

TABLE 22. TYPE OF LAND TENURE OF GRAIN FARMS, BY DELIVERY POINT, 1962-63 AND 1966-67

Delivery Point	1962-63		1966-67	
	Owned	Rented	Owned	Rented
<u>Too Small To Classify</u>				
Rhodes	93.8	6.2	93.1	6.9
<u>Hamlets</u>				
Indian Springs	75.6	24.4	71.2	28.8
Wood Bay	77.8	22.2	82.6	17.4
Landseer	73.4	26.6	74.5	25.5
Greenway	58.6	41.4	76.6	23.4
Hilton	61.7	38.3	Closed	
Neelin	77.7	22.3	82.4	17.6
Glenora	71.1	28.9	64.9	35.1
Rounthwaite	77.3	22.7	87.2	12.8
<u>Villages</u>				
Holmfield	65.1	34.9	76.2	23.8
Nesbitt	73.7	26.3	76.5	23.4
Ninga	75.2	24.8	86.5	13.5
Clearwater	76.9	23.1	79.5	20.5
Margaret	68.8	31.2	77.3	22.7
Mather	78.9	21.1	84.8	15.2
La Riviere	63.1	36.9	69.0	31.0
Dunrea	70.9	29.1	84.9	15.1
Mariapolis	64.1	35.9	64.9	35.1
Ninette	84.7	15.3	84.5	15.5
<u>Towns</u>				
Cypress River	77.2	22.8	78.0	22.0
Belmont	73.9	26.1	83.3	16.7
Swan Lake	56.0	44.0	62.4	37.6
Holland	71.5	28.5	76.6	23.4
Cantwright	74.6	25.4	80.5	19.5
Wawanesa-Treesbank	73.7	26.3	96.3	13.7
Crystal City	74.5	25.5	83.0	17.0
Baldur	75.0	25.0	78.9	21.1
<u>Greater Towns</u>				
Treherne	71.2	28.8	74.7	25.3
Glenboro	72.2	27.8	79.4	20.6
Pilot Mound	68.5	31.5	71.7	28.3
Killarney	81.9	18.2	83.0	17.0
Study Area Total	73.7	26.3	78.9	21.1

Source: Canadian Wheat Board.

PART III

Grain Marketing and Handling Characteristics

Delivery Permit Books Issued

The number of permit holders in the study area decreased from 3,251 in 1962-63 to 2,880 in 1969-70 (Table 23). Only four of the 31 points under review showed an increase in permit books issued. These were Mariapolis (52 to 67), La Riviere (87 to 97), Wawanesa - Treesbank (81 to 88) and Crystal City (102 to 110). Hilton and Rhodes closed in 1966-67 and 1967-68, respectively. Proportionately, small communities lost more than large communities. The eight delivery points classified as towns experienced the least loss in permit holders.

TABLE 23. DELIVERY PERMIT BOOKS ISSUED, BY DELIVERY POINT, 1962-63 TO 1969-70

Delivery Point	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70
<u>Too Small To Classify</u>								
Rhodes	15	14	15	14	12	-	-	-
<u>Hamlets</u>								
Indian Springs	60	57	56	54	53	49	49	48
Wood Bay	42	43	41	40	37	31	30	30
Landseer	40	39	38	34	33	29	27	28
Greenway	40	38	36	34	30	24	31	29
Hilton	31	26	29	30	-	-	-	-
Neelin	85	84	84	81	82	74	77	77
Glenora	88	88	83	82	73	67	61	63
Rounthwaite	86	83	81	81	79	78	75	85
<u>Villages</u>								
Holmfield	45	39	39	40	36	36	34	29
Nesbitt	124	124	121	121	121	117	117	112
Ninga	109	108	106	102	98	95	96	97
Clearwater	83	77	73	76	76	71	71	70
Margaret	69	65	66	63	60	61	59	60
Mather	94	94	90	86	85	81	79	83
La Riviere	87	85	84	88	87	92	97	97
Dunrea	97	96	96	88	89	83	84	85
Mariapolis	52	57	62	64	62	63	63	67
Ninette	69	63	59	57	58	54	55	62
<u>Towns</u>								
Cypress River	147	145	142	140	133	136	138	139
Belmont	136	136	138	126	136	135	133	131
Swan Lake	154	149	140	140	136	137	135	134
Holland	158	157	156	150	148	148	146	148
Cartwright	150	144	143	140	138	135	134	129
Wawanesa-Treesbank	81	79	80	82	89	87	87	88
Crystal City	102	107	111	109	105	106	105	110
Baldur	133	129	127	124	125	122	117	119
<u>Greater Towns</u>								
Treherne	205	197	194	189	180	181	181	186
Glenboro	191	187	182	185	180	170	164	155
Pilot Mound	127	120	128	120	124	118	106	101
Killarney	351	354	337	330	327	328	321	326
Study Area Total	3,251	3,184	3,137	3,070	2,992	2,908	2,873	2,880

Source: Canadian Wheat Board.

Canadian Wheat Board Initial Payments

Under the Canadian Wheat Board marketing system producers receive an initial payment upon delivery of their grain to the country elevator. The initial payment is a type of street price as it is based on a value of the grain in store at the terminal elevator point, less freight costs and country elevator handling charges.

The whole of the Killarney region is located within the 16 cent per hundred-weight freight rate zone. Consequently all 31 delivery points have the same value per bushel for corresponding grades of grain.

The table below shows the initial payment to producers for specified grades in 1968-69.

Wheat	
No. 1 Northern	\$1.54-3/4
No. 2 Northern	1.50-3/4
No. 4 Northern	1.39-3/4
No. 1 C.W.A.D.	1.54-3/4
No. 2 C.W.A.D.	1.50-3/4
No. 4 C.W.A.D.	1.37-3/4
Oats	
No. 2 C.W.	.55-1/4
No. 1 Feed	.50-1/4
Barley	
No. 3 C.W. 6th Row	.92-3/4
No. 1 Feed	.83-3/4

Number and Capacity of Country Elevators

The number of licensed grain elevators and their various storage capacities at a delivery point depicts the importance of that point as a grain collection and distribution centre, although bushel receipts must also be taken into account. The number of elevators at a point is a rough approximation also of the degree of competition, at a particular point. Generally where there are two or more elevators, more than one grain company is represented. The number of grain elevators and the capacity of any particular station is shown in Table 24. None increased its number of elevators, although some points had an increased storage capacity. Crystal City showed the greatest increase, from 162,000 bushels in 1962-63 to 348,000 bushels in 1969-70. The number of elevators declined by one at Dunrea, as storage capacity increased from 132,000 bushels in 1962-63 to 224,000 bushels in 1969-70. Although a small "C" elevator was torn down, an annex was added to the "A" elevator with a capacity of 110,000 bushels, explaining this increased capacity.

TABLE 24. NUMBER AND CAPACITY OF LICENCED ELEVATORS BY GRAIN DELIVERY POINT, 1962-63, 1966-67 AND 1969-70

Delivery Point	Number of Elevators		Storage Capacity	
	1962-63	1966-67	1962-63	1966-67
	- number -		- '000 bu. -	
<u>Too Small To Classify</u>				
Rhodes	1	1	Closed	27
				Closed
Hamlets				
Indian Springs	1	1	65	65
Wood Bay	1	1	54	54
Landseer	2	2	93	93
Greenway	1	1	49	49
Hilton	1	1	27	Closed
Neelin	2	2	134	134
Treesbank	1	1	33	33
Glenora	1	1	72	72
Rounthwaite	2	2	132	132
Villages				
Holmfield	1	1	50	50
Nesbitt	2	2	212	212
Ninga	3	3	244	244
Clearwater	2	2	105	105
Margaret	2	2	126	126
Mather	2	2	148	148
La Riviere	2	2	145	145
Dunrea	3	3	132	132
Mariapolis	2	2	76	76
Ninette	1	1	25	45
Towns				
Cypress River	3	3	279	307
Belmont	2	2	115	185
Swan Lake	4	4	385	385
Holland	4	4	447	447
Cartwright	3	3	220	220
Wawanesa	1	1	110	119
Crystal City	3	3	162	348
Baldur	2	2	128	150
Greater Towns				
Treherne	4	4	310	332
Glenboro	2	2	182	158
Pilot Mound	3	3	194	194
Killarney	5	5	598	685

Source: Board of Grain Commissioners.

Receipts of Grain

The relative importance of the various delivery points, as grain collection and distribution centres, is shown in Table 25. Generally, the largest communities attract the greatest volume of business. In the time period shown, Killarney has received the most grain, over one million bushels in each year, except 1963-64.

The through-put ratio is a rule-to-thumb measurement of the profitability of elevators that are dependent for their income on the volume of grain handled. It is generally accepted that the break-even point lies somewhere between the ratios of three to one and four to one, where the figures refer to the handlings per year and the storage capacity, respectively. A further discussion on through-put ratios is found in Part IV.

At many stations in the study area, the volume of grain going through the country elevator system is relatively large, in comparison to the storage capacity. Looking at the ratios in Table 32, under the first two columns, one sees that the majority of points receive enough grain to turn over the total storage space twice, and in some cases, more than four times per year. However, this does not mean that this particular country elevator system is showing a considerable profit. Only when the terminal points are taken into consideration, combined with other facets of the operation, could the system be proved to be prosperous or otherwise.

TABLE 25. RECEIPTS OF GRAIN AT LICENCED ELEVATORS BY DELIVERY POINT, 1962-63 TO 1968-69.

Delivery Point	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
	- '000 bu. -						
<u>Too Small To Classify</u>							
Rhodes	26	38	114	118	50	Closed	Closed
Hamlets							
Indian Springs	100	132	178	115	169	118	155
Wood Bay	135	70	101	119	90	85	95
Landseer	156	101	122	103	105	88	85
Greenway	117	66	99	101	80	72	95
Hilton	84	58	78	70	Closed	Closed	Closed
Neelin	240	184	254	254	269	190	232
Treesbank	147	37	48	58	66	45	25
Glencora	326	200	215	221	239	184	197
Routhwaite	1100	312	1134	510	1166	362	384
Villages							
Holmfild	174	120	165	183	186	132	134
Nesbitt	444	419	542	637	604	443	446
Ninga	197	306	372	416	398	310	306
Clearwater	314	200	271	359	286	251	259
Margaret	197	201	294	303	296	211	222
Mather	348	295	332	310	341	285	246
La Riviere	389	272	338	436	394	340	317
Dunrea	271	313	405	459	1458	353	391
Mariapolis	151	130	200	189	175	179	160
Ninette	121	109	131	148	159	127	153
Towns							
Cypress River	554	349	483	510	503	470	485
Belmont	322	250	348	271	404	411	381
Swan Lake	574	394	485	549	505	437	450
Holland	587	391	508	454	545	459	485
Cartwright	529	411	444	363	540	451	408
Wawaresa	304	203	255	309	327	268	305
Crystal City	471	377	453	615	504	426	423
Baldur	371	213	319	298	299	307	331
Greater Towns							
Treherne	661	407	540	602	623	568	545
Glenthoro	530	332	448	541	538	463	492
Pilot Mound	512	315	462	592	467	412	408
Killarney	1,086	944	1,210	1,427	1,339	1,065	1,050
Study Area Total	11,002	3,215	10,626	11,600	11,425	9,542	9,667

Source: Board of Grain Commissioners.

Canadian Wheat Board Specified Acreage

For a long period up to the start of crop year 1970-71, the basis for determining each producer's bushelage per quota was the so-called "specified acreage". This referred to permit holders' farm land devoted to cereal crops, summerfallow and cultivated forage crops. Excluded were acreages in oilseeds, miscellaneous crops, native pasture and unimproved land. During the study period, specified acreage constituted the general delivery quota base. Oilseeds had their own quotas, based on declared seeded acreage.

The number of specified acres tributary to a delivery point is an indicator of the demand for grain handling and storage facilities at that station.

The specified acreage for each delivery point in the Killarney study area during the period 1962-63 to 1969-70 is shown in Table 26. In 1969-70, the specified acreage portion of grain-farm acreage here totaled 1.1 million acres, or 69.4 percent of the total of 1.6 million acres. Accordingly, a one bushel quota, general in the area, would bring forth 1.1 million bushels of cereal grains.

During the period under review the area's specified acreage fluctuated within fairly narrow limits, the low point being 1,027,308 acres in 1965-66 and the high point coming three years later when the total reached 1,128,273 acres, according to farmers' declarations. A comparison of the totals for 1962-63 and 1969-70 discloses an increase of four percent.

On a type of community breakdown basis, three hamlets experienced a decrease in specified acreage, two had no significant change and two (Neelin and Rounthwaite) increased. The specified acreage tributary to three of the villages declined. Four showed no appreciable change and three increased. The greatest decrease was experienced at Margaret (down 13.1 percent) and the largest increase at Mariapolis (up 38.6 percent). It is significant to note that the specified acreage increased at all towns and all greater towns in the Killarney Region. The increase was insignificant at Pilot Mound - only 0.8 percent - but was significant at all the others. The dual delivery point of Wawanesa-Treesbank showed a change of plus 26.1 percent, or nearly 9,000 acres. The elevator at Hilton closed in 1966 and it is probable that many of the producers in that hinterland (9,308 acres) chose Wawanesa-Treesbank for their new delivery point. The specified acreage tributary to this latter delivery point rose by about 5,500 acres in 1966-67 and continued to rise in subsequent years.

Table 27 provides some added detail concerning the mix of grain crops that are produced in the area. Canadian Wheat Board grains consist of wheat, durum, oats and barley. In the study area about 60 percent of the specified acreage is seeded to these grains. This percentage fluctuated over the study period, with the low occurring in 1964-65 (56.4 percent) and the high in 1967-68 (66.1 percent). This high followed the record wheat export year, 1966, and was accordingly predictable.

The grain farms in the hinterlands served by the towns and greater towns appear to devote less to their acreage to Canadian Wheat Board grains than do those tributary to the hamlets and villages in the region.

TABLE 26. CANADIAN WHEAT BOARD SPECIFIED ACREAGE FOR DELIVERY QUOTA PURPOSES, BY DELIVERY POINT, 1962-63 TO 1969-70

Delivery Point	1962-63 ^{1/}	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	% of Change 1962-63 To 1969-70
Too Small To Classify Rhodes	5,311	4,651	4,698	4,433	4,507	-	-	-	-
Hamlets									
Indian Springs	16,584	16,609	16,759	16,076	16,687	15,971	16,583	16,747	+ 1.0
Wood Bay	11,615	11,356	10,465	10,045	9,501	9,221	9,512	9,477	-18.4
Landseer	13,206	13,495	13,567	12,233	11,906	10,753	10,211	10,161	-23.1
Greenway	13,122	12,436	11,564	11,967	11,307	10,303	12,040	11,106	-17.3
Hilton	10,258	9,016	8,913	9,308	-	-	-	-	-
Neelin	23,575	24,728	24,072	23,865	24,537	23,515	25,759	28,578	+21.2
Glenora	25,907	25,791	24,803	25,870	25,234	25,028	25,404	25,546	- 1.4
Rounthwaite	30,977	31,018	30,952	31,934	32,410	34,038	33,809	34,481	+11.3
Villages									
Holmfield	14,895	14,658	14,927	14,596	14,625	16,540	16,924	14,468	- 2.9
Nesbitt	42,723	44,861	44,907	43,494	45,453	46,714	46,957	42,156	- 1.3
Ninga	40,506	39,874	38,326	37,120	36,574	40,402	39,460	37,010	- 8.6
Clearwater	31,518	28,313	25,378	29,040	29,358	30,345	30,996	27,972	-11.3
Margaret	26,321	26,307	25,550	24,199	23,264	24,068	23,865	22,872	-13.1
Mather	32,135	31,464	30,434	29,453	30,154	31,481	32,531	31,887	- 0.8
La Riviere	30,518	30,795	30,606	30,585	32,465	37,107	37,980	35,496	+16.3
Dunrea	40,436	41,413	40,445	38,822	37,475	38,589	42,051	41,773	+ 3.3
Maripolis	16,384	19,380	21,431	20,527	20,359	21,939	22,441	22,704	+38.6
Ninette	18,120	16,811	15,814	16,337	17,602	16,226	17,159	18,586	+ 2.6
Towns									
Cypress River	51,729	52,843	51,536	50,304	51,861	55,083	55,556	55,334	+ 7.0
Belmont	41,220	42,352	43,467	42,287	46,351	47,515	47,866	46,399	+12.6
Swan Lake	45,583	44,784	42,501	42,288	43,894	46,450	48,508	49,990	+ 9.7
Holland	46,100	46,655	47,534	46,686	48,822	49,949	53,659	50,166	+ 8.8
Cartwright	48,642	49,210	47,708	47,157	47,946	52,479	52,793	50,746	+ 4.3
Wawanesa-Treesbank	34,192	34,802	34,768	33,630	39,152	39,543	40,559	43,125	+26.1
Crystal City	39,580	43,054	43,734	40,206	40,734	47,144	46,665	44,295	+11.9
Baldur	30,531	38,869	36,870	38,357	40,474	42,793	43,541	43,294	+ 9.5
Greater Towns									
Treherne	56,052	54,568	54,101	54,420	56,199	60,714	60,509	63,556	+13.4
Glenboro	50,258	60,345	59,439	62,104	62,866	64,405	65,265	63,302	+ 6.8
Pilot Mound	45,321	43,980	44,697	43,429	46,438	49,524	48,163	45,693	+ 0.8
Killarney	114,136	117,814	113,454	112,134	111,867	122,598	122,507	122,971	+ 7.7
Study Area Total	1,044,735	1,079,252	1,055,420	1,027,308	1,059,022	1,110,293	1,128,273	1,100,391	+ 4.1

^{1/} Durum excluded from specified acreage. Source: Canadian Wheat Board.

Quotas Required to Fill Elevator Storage Capacity

This discussion is concerned with specified acreage quota only, and ignores the seeded acreage quotas set for flaxseed and rapeseed. With the passing of the specified acreage concept in 1970, it is perhaps not completely indicative of current conditions. However, it is offered here to illustrate the relationship between seeded acreage in the hinterland of each point and capacity of elevators serving the farms there.

Bearing in mind that "specified acres" denotes the quantity of cereal grains that can be expected to be delivered on each quota, and therefore is in fact also a bushelage measure, Table 28 shows the relationship between elevator storage capacity and quota bushels. A capacity to quota bushels (measured by specified acres) is developed and presented as an indication of the adequacy of the grain facilities at each point in the study area. The data used in Table 27 are those for 1969-70.

This ratio varies from 9.1 at Landseer to a low of 2.3 at Mariapolis. Accordingly, it would appear that, for the hinterland it has to serve, the elevator plant at Landseer is excessive. There does not appear to be any correlation between size of community and the capacity-to-quota ratio.

The median number of specified acreage quotas that would fill existing capacity at the 29 stations listed in Table 27 is 4.4. Hence, half the delivery points in Killarney Region can accommodate a four bushel quota, starting empty and not moving any grain out. On this basis, Landseer would be less than half full on a four bushel quota, whereas Mariapolis at this quota level would have to refuse half of the deliveries on the grounds of insufficient space.

To the extent that Canadian Wheat Board seeks to equalize quota levels among all producers, those points with a low capacity-to-quota ratio will be able to maintain a higher through-put ratio than will those stations having a higher capacity-to-quota ratio (See Table 28).

Table 27 also provides information as to the number of boxcars required to move a one-bushel specified acreage quota. Because the number of cars so required depends directly on the specified acreage, this generally increased with the size of the community. The range is from five at Wood Bay (only six at Landseer and Greenway) to sixty-two at Killarney.

Accordingly, a station like Landseer has an advantage over one like Mariapolis. Landseer farmers need only six cars to move each quota and the elevator plant can store nine quotas, whereas at Mariapolis, they need twelve cars to transport a full quota but can store only two full quotas. This says little about the relative profitability of the plant at these points. Other factors, such as the number of cars that one operator can load in a given time, the availability of empties, the number spotted at each elevator and other factors, must be taken into account too. However, it would appear that these parameters ought to enter any determination of the number of boxcars to be allocated to each shipping point.

TABLE 27. PERCENT OF SPECIFIED ACRES DEVOTED TO CANADIAN WHEAT BOARD GRAINS^{1/}, 1963-64 TO 1969-70

Delivery Point	Board Grains 1963-64		Board Grains 1964-65		Board Grains 1965-66		Board Grains 1966-67		Board Grains 1967-68		Board Grains 1968-69		Board Grains 1969-70	
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Too Small To Classify	2,472	53.1	2,753	58.6	2,604	58.8	2,906	64.5	Closed	Closed	Closed	Closed	Closed	Closed
Rhodes														
Hamlets														
Indian Springs	10,106	60.8	10,224	61.0	9,712	60.4	10,193	61.1	9,977	62.5	10,783	65.0	10,752	64.2
Wood Bay	6,855	60.4	6,373	60.9	6,351	63.2	6,382	67.2	6,320	68.5	6,865	72.2	6,348	67.0
Landseer	7,650	56.7	7,518	55.4	6,940	56.7	7,402	62.2	6,542	60.8	6,403	62.7	6,110	60.1
Greenway	6,894	55.4	6,550	56.6	7,296	61.0	6,552	57.9	6,190	60.1	7,511	62.4	6,864	61.8
Hilton	4,373	48.5	4,632	52.0	4,664	50.1	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed
Neelin	13,950	56.4	13,534	56.2	14,395	60.3	15,359	61.6	14,191	60.3	16,410	63.7	16,827	58.9
Glenora	15,154	58.8	14,361	57.9	15,794	61.1	15,472	61.3	15,499	61.9	16,428	64.7	15,250	59.7
Rounthwaite	17,841	57.5	18,139	58.6	19,508	61.1	20,191	62.3	21,460	63.0	22,530	66.6	20,287	58.8
Villages														
Holmfield	8,557	58.4	8,823	59.1	8,637	59.2	10,168	71.3	11,459	69.3	11,665	68.9	8,703	60.2
Neabitt	25,600	57.1	26,488	59.0	26,118	60.0	27,976	61.5	30,410	65.1	30,662	65.3	25,989	61.6
Ninga	26,651	56.8	21,849	57.0	21,230	57.2	21,754	59.5	24,858	61.5	24,867	63.0	21,172	57.2
Clearwater	16,925	59.8	15,145	59.7	17,258	59.4	18,614	63.4	19,800	65.2	20,636	66.6	17,154	61.3
Margaret	15,270	58.0	15,120	59.2	14,492	59.9	14,306	61.5	15,511	64.4	15,946	66.8	13,522	59.1
Mather	18,461	58.7	18,324	60.2	17,533	61.6	19,775	65.6	21,441	68.1	22,390	68.8	18,982	59.5
La Riviere	18,286	59.4	18,233	59.6	18,852	61.6	21,514	66.3	24,405	65.8	25,434	70.0	20,574	58.0
Dunrea	24,222	58.5	23,102	57.1	24,677	63.6	22,842	61.0	24,836	64.4	27,172	64.6	26,525	63.5
Mariapolis	10,532	54.3	12,415	57.9	11,887	57.9	11,236	55.2	13,465	61.4	14,694	65.5	12,754	56.2
Ninette	9,601	57.1	8,793	55.6	9,350	57.2	10,969	62.3	9,388	57.9	10,179	59.3	11,405	61.4
Towns														
Cypress River	29,064	55.0	26,643	51.7	27,718	55.1	29,680	57.2	31,100	56.5	32,347	58.2	30,229	54.6
Belmont	23,032	54.4	23,281	53.6	24,297	57.5	28,698	61.9	28,934	60.9	30,543	63.8	27,381	59.0
Swan Lake	25,861	59.1	24,652	68.0	26,105	61.7	27,126	61.8	30,521	65.7	32,579	67.2	29,959	59.9
Holland	24,732	53.0	24,341	51.2	25,053	53.7	26,998	55.3	27,924	55.9	33,400	62.2	26,890	53.6
Cartwright	28,395	57.7	28,199	59.1	27,975	59.3	30,262	63.1	34,381	65.5	35,776	67.8	28,174	55.5
Wawanesa-Treesbank	18,799	54.0	17,868	51.4	19,301	56.6	20,899	53.4	22,430	56.7	23,215	57.2	22,836	53.0
Crystal City	24,978	58.0	25,883	59.2	23,832	59.3	25,596	62.8	31,721	67.3	32,596	69.9	28,439	64.2
Baldir	24,739	55.9	22,915	59.0	23,379	61.0	24,808	61.3	26,802	62.6	26,428	62.1	26,391	61.0
Greater Towns														
Treherne	28,058	51.4	26,974	50.0	28,044	51.5	29,998	53.4	34,624	57.0	35,950	59.4	34,295	54.0
Glenboro	32,001	53.0	29,436	49.5	31,825	51.2	32,220	51.3	34,656	53.8	36,031	55.2	32,899	52.0
Pilot Mound	25,572	58.1	25,684	57.5	26,066	60.0	28,079	60.5	30,867	62.3	31,045	64.5	28,524	62.4
Killarney	68,321	58.0	66,532	58.6	67,533	60.2	69,241	61.9	76,216	62.2	76,926	62.8	73,558	59.8
Study Area Total	605,952	56.6	594,784	56.4	607,616	59.7	637,216	60.1	685,928	66.1	717,411	63.6	648,793	58.5

^{1/} Board Grains are wheat, durum, oats, barley

Source: Canadian Wheat Board.

TABLE 28. RATIO OF RATED ELEVATOR CAPACITY TO SPECIFIED ACREAGE^{1/} AND NUMBER OF BOXCARS NEEDED TO MOVE A ONE-BUSHEL QUOTA BY DELIVERY POINT, 1969-70.

Delivery Point	Specified Acres	Rated Elevator Capacity	Ratio	Boxcars ^{2/} To Move A One-Bushel Quota
Hamlets				
Indian Springs	16,717	65,000	3.9	9
Wood Bay	9,477	53,600	5.7	5
Landseer	10,161	92,800	9.1	6
Greenway	11,106	49,000	4.4	6
Neelin	28,578	133,200	4.7	15
Glenora	25,546	72,400	2.8	13
Routhwaite	34,481	132,000	3.8	18
Villages				
Holmfield	14,468	50,000	3.5	8
Nesbitt	42,156	212,000	5.0	22
Ninga	37,010	243,500	6.6	19
Clearwater	27,972	104,700	3.7	14
Margaret	22,872	125,000	5.5	12
Mather	31,887	194,100	6.1	16
La Piviere	35,496	144,800	4.1	19
Dunrea	41,773	223,700	5.4	21
Mariapolis	22,704	53,000	2.3	12
Ninette	18,586	46,500	2.5	10
Towns				
Cypress River	55,234	306,900	5.5	28
Belmont	46,322	195,000	4.2	24
Swan Lake	49,990	385,400	7.7	25
Holland	50,165	415,650	8.9	26
Cartwright	50,746	229,300	4.3	26
Wawanesa-Treesbank	43,125	151,500	3.5	22
Crystal City	44,295	348,200	7.9	23
Baldur	43,294	149,700	3.5	22
Greater Towns				
Treherne	63,556	331,600	5.2	32
Glenboro	63,302	157,500	2.5	32
Pilot Mound	45,697	193,900	4.2	23
Killarney	122,971	685,300	5.6	62

^{1/}Translate to bushels per quota

^{2/}Assume 2,000 bushels per boxcar.

Number of Boxcars per Shunt that Can be Loaded

The number of boxcars that an elevator operator can load in one group is limited by the length of the rail siding and the location of the elevator on the siding. Thus, while it may be possible to store twenty boxcars on the siding, perhaps only four or five can be loaded ready for collection by a train at one call. The number of carlengths between the elevator spout and the neighbouring company's spout or the ends of the siding are crucial.

Data for each delivery point in the study region, for each company at the point and for each elevator are given in Table 29. Generally the number of boxcars per delivery point is greater as the size of community increases. For instance, the average for the hamlets is eight cars, for the villages 10 cars, for towns 14, and greater towns 18 cars. The range extends from four at Indian Springs to 25 at Killarney.

Additional information in Table 29 gives the names and numbers of each delivery point's Loading Block and the railway line on which it is situated.

A comparison of the number of boxcars needed to move a one-bushel quota at each point (Table 28) with the data re boxcars in Table 29 yields the information that at only four points (Wood Bay, Landseer, Holmfield and Clearwater) can one shunt of cars move a full quota. Nine points need more than two sets of car spottings to move a quota. The number of quotas per shunt ranges from 0.31 at Glenboro to 1.83 at Landseer; that is, Glenboro requires six times as many train calls as Landseer to pick up a quota. Put another way, while Glenboro needs 32 boxcars to move its quota, only 10 cars can be loaded there in one group. At the other end of the range. Landseer needs 6 cars to move its quota and can load 11 cars.

TABLE 29. MAXIMUM NUMBER OF BOXCARS PER SHUNT THAT CAN BE LOADED AT SPECIFIED COUNTRY ELEVATORS IN THE STUDY AREA, JULY 1968

Delivery Point	Canadian Wheat Board Loading Block Number	Name	Railway	Sub- Division	Number of Cars Per Point	Elevator Company	Number of Cars per Company
Indian Springs	3	Winnipeg South	CN	Carman	4	United Grain Growers Ltd.	4
Wood Bay	62	La Riviere	CP	Napinka	8	Manitoba Pool Elevators	8
Landseer	62	La Riviere	CP	Glenboro	11	Manitoba Pool Elevators	11
Greenway	3	Winnipeg South	CN	Carman	5	United Grain Growers Ltd.	5
Neelin	3	Winnipeg South	CN	Wakopa	12	Manitoba Pool Elevators United Grain Growers Ltd.	6 6
Glenora	3	Winnipeg South	CN	Wakopa	6	Manitoba Pool Elevators	6
Routhwaite	6	Brandon West	CN	Wawanesa	12	Federal Grain Ltd. Manitoba Pool Elevators	5 7
Holmfield	62	La Riviere	CP	Napinka	9	Harrison Milling & Grain Co. Ltd.	9
Nesbitt	62	La Riviere	CP	Glenboro	16	Manitoba Pool Elevators United Grain Growers Ltd.	10 6
Ninga	62	La Riviere	CP	Napinka	8	Manitoba Pool Elevators United Grain Growers Ltd.	6 2
Clearwater	62	La Riviere	CP	Napinka	18	Federal Grain Ltd. Manitoba Pool Elevators	8 10
Margaret	9	Brandon West	CN	Hartney	10	Manitoba Pool Elevators United Grain Growers Ltd.	5 5
Mather	62	La Riviere	CP	Napinka	6	Manitoba Pool Elevators United Grain Growers Ltd.	4 2
La Riviere	62	La Riviere	CP	La Riviere	10	Federal Grain Ltd. Manitoba Pool Elevators	5 5
Dunrea	9	Brandon West	CN	Hartney	15	Manitoba Pool Elevators	15
Mariapolis	3	Winnipeg South	CN	Carman	6	United Grain Growers Ltd.	6
Ninette	9	Brandon West	CN	Hartney	6	Manitoba Pool Elevators	6

TABLE 29. MAXIMUM NUMBER OF BOXCARS PER SHUNT THAT CAN BE LOADED AT SPECIFIED COUNTRY ELEVATORS IN THE STUDY AREA, JULY 1968 (Concluded)

Delivery Point	Canadian Wheat Board Loading Block Number	Canadian Wheat Board Loading Block Name	Railway	Sub- Division	Number of Cars Per Point	Elevator Company	Number of Cars per Company
Cypress River	62	La Riviere	CP	Glenboro	18	Federal Grain Ltd. Manitoba Pool Elevators N.M. Paterson & Sons Ltd.	5 6 7
Belmont	2	Winnipeg South	CN	Carman	18	Manitoba Pool Elevators United Grain Growers Ltd.	14 4
Swan Lake	3	Winnipeg South	CN	Carman	14	Federal Grain Ltd. Manitoba Pool Elevators N.M. Paterson & Sons Ltd. United Grain Growers Ltd.	3 5 3 3
Holland	62	La Riviere	CP	Glenboro	21	Federal Grain Ltd. Manitoba Pool Elevators N.M. Paterson & Sons Ltd.	3 13 5
Cambridge	62	La Riviere	CP	Napinka	10	Federal Grain Ltd. Manitoba Pool Elevators N.M. Paterson & Sons Ltd.	3 5 2
Wawanesa-Treesbank	0	Brandon West	CP	Wawanesa	9	Manitoba Pool Elevators	8
Crystal City	62	La Riviere	CP	Napinka	9	Manitoba Pool Elevators N.M. Paterson & Sons Ltd.	5 4
Baldur	2	Winnipeg South	CN	Carman	13	Manitoba Pool Elevators United Grain Growers Ltd.	7 6
Treherne	62	La Riviere	CP	Glenboro	22	Manitoba Pool Elevators N.M. Paterson & Sons Ltd. United Grain Growers Ltd.	12 5 5
Glenboro	62	La Riviere	CP	Glenboro	10	Manitoba Pool Elevators	10
Pilot Mound	62	La Riviere	CP	Napinka	16	Federal Grain Ltd. Manitoba Pool Elevators	7 9
Villarney	62	La Riviere	CP	Napinka	25	Manitoba Pool Elevators N.M. Paterson & Sons Ltd. United Grain Growers Ltd.	9 10 6

Source: Grain Elevator Companies.

The Block Loading System

The beginning of the 1969-70 crop year marked the start of an improved system of issuing shipment orders and allocating boxcars. This became known as the Canadian Wheat Board Block Loading System. The "blocks" are made up of the grain delivery points located on specified groups of contiguous railway subdivisions, with those of one company being placed on a different loading block to those in another railway company.

In addition to the numbers of boxcars per shunt, Table 29 also provides information about the loading block, the railway company, the railway subdivision and the elevator companies pertaining to each station in the Killarney Region.

Improved communication between the Canadian Wheat Board and the elevator operators now enables the Board to know the quantities of each kind and grade of grain available for forwarding from each loading block. The Board is thus able to issue shipping orders to the grain elevator companies represented in each loading block and the companies can then allocate these to their elevators in the loading block specified by the Wheat Board. Thus it can be expected that the correct kind and grade of grain needed by the Board in forward positions will be shipped.

Farm to Elevator Hauling Distances

The farm land from which grain delivery points draw grain from producers were plotted for the crop year 1962-63 as shown in Figure 1. Each quarter section, as reported in Canadian Wheat Board permit books, was plotted on a map producing a graphic portrayal of the relative sizes and shapes of grain hinterlands.

The farm to elevator hauling distance was measured from the corner of the farm nearest to a good road leading to the elevator. The route chosen involved two criteria, first, shortest distance and second, best available road.

Table 30 shows the average mileage and the range of hauling distance for grain farmers at delivery points in the study area. From the table, one can see that the larger centres not only attract more patronage for grain deliveries but also attract patronage from farther distances. In examining the average length of haul one finds that to the smaller centres it is from three to five miles, whereas to the larger centres, it is from five to nine miles.

For the Killarney region as a whole, the average hauling distance in 1962-63 was just under six miles.

TABLE 30. FARM TO ELEVATOR HAULING DISTANCE, BY DELIVERY POINT, 1962-63

Delivery Point	Number of Farms	Hauling Distance			Average Mileage
		High	Low	Range	
- miles -					
<u>Too Small To Classify</u>					
Rhodes	15	6.75	1.00	5.75	3.13
<u>Hamlets</u>					
Indian Springs	60	10.00	1.00	9.00	5.18
Wood Bay	42	9.00	.50	8.50	3.50
Landseer	40	7.50	1.00	6.50	3.63
Greenway	40	9.00	.50	8.50	3.96
Hilton	31	7.75	.25	7.50	3.18
Neelin	85	10.00	.50	9.50	4.73
Glenora	88	7.85	.50	7.35	4.23
Rounthwaite	86	10.00	.50	9.50	3.18
<u>Villages</u>					
Holmfield	45	12.50	.50	12.00	5.57
Nesbitt	124	12.50	1.25	11.25	5.65
Ninga	109	14.75	.50	14.25	5.24
Clearwater	83	11.25	1.25	13.00	5.46
Margaret	60	14.50	1.30	13.20	4.73
Mather	94	11.25	.50	10.75	5.13
La Riviere	87	12.75	.75	12.00	5.44
Dunrea	97	10.00	1.25	8.75	5.48
Mariapolis	52	8.50	.50	8.00	4.24
Ninette	69	14.25	.75	13.50	5.28
<u>Towns</u>					
Cypress River	147	20.40	.75	19.65	5.96
Belmont	136	11.85	1.00	10.85	5.59
Swan Lake	154	16.50	.50	16.10	5.46
Holland	158	17.50	.50	17.00	6.72
Cartwright	150	13.50	1.00	12.50	6.00
Wawanesa-Treesbank	81	13.00	.75	12.25	4.61
Crystal City	102	14.75	1.25	13.50	6.53
Baldur	133	12.00	.50	11.50	5.32
<u>Greater Towns</u>					
Treherne	205	22.50	.50	22.00	6.89
Glenboro	107	17.00	.25	16.75	6.76
Pilot Mound	127	16.50	.75	15.95	5.73
Killarney	357	20.75	1.00	19.75	9.49
Study Area Total	3,251	22.50	.25	22.25	5.91

PART IV

Rationalization of Grain Delivery Points

The first three parts of this report have dealt with characteristics of the communities, agricultural characteristics of the grain farms served by the communities and the grain marketing and handling characteristics of the study area. This final part attempts to show what changes might be expected if some of the communities were to lose their grain handling facilities. "Rationalizing" grain delivery points in this manner is admittedly a hypothetical exercise. As such it can not be construed as a set of recommendations nor as a set of definitive adjustments that will in actual fact occur. Justification for the exercise may be found in the fact that the probable directions of change are outlined and the magnitude of supposed changes are estimated. Solely for purposes of this study it was assumed that a total of 15 points in the Killarney region were closed. The remaining 16 points would all be affected to some extent by additional grain receipts of the diversion from the closed points.

Figure 2 was derived in a similar manner to Figure 1 by reallocating the grain farm land tributary to the closed points to the nearest open point.

Probable Additional Through-put at Alternate Delivery Points

Table 31 shows the probable diversion of grain that would occur if the 15 specified points were closed. It can be observed that all points remaining open would be affected to a greater or lesser extent by diversions. The additional volume ranges from about 3,000 bushels per year at Mather to about 750,000 bushels at Treesbank.

TABLE 31. PROBABLE ADDITIONAL THROUGH-PUT AT ALTERNATIVE DELIVERY POINTS IF SPECIFIED DELIVERY POINTS HAD BEEN CLOSED, 1960-61 TO 1966-67

Specified Points	Alternative! Delivery Points															
	Maitland	Trochene	La Riviere	Landsmeer	Clear- water	Holland	Glenboro	Cypress River	Pilot Mound	Holm- field	Killarney	Wood Bay	Ninga	Cart- wright	Nesbitt	Trees- bank
	- thousand bushels -															
Rounthwaite																
1960-61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	144	132
1961-62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	122	111
1962-63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	209	191
1963-64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	163	149
1964-65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	227	207
1965-66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	266	244
1966-67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	243	223
Wawanesa																
1960-61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	149
1961-62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	73
1962-63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	249
1963-64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	166
1964-65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	209
1965-66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	253
1966-67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59	268
Hilton																
1960-61	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	43
1961-62	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	16
1962-63	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	57
1963-64	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	40
1964-65	-	-	-	-	-	-	25	-	-	-	-	-	-	-	-	53
1965-66	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	48
1966-67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rhodes																
1960-61	-	-	-	-	-	-	-	-	-	-	2	-	42	-	-	-
1961-62	-	-	-	-	-	-	-	-	-	-	1	-	25	-	-	-
1962-63	-	-	-	-	-	-	-	-	-	-	1	-	35	-	-	-
1963-64	-	-	-	-	-	-	-	-	-	-	2	-	36	-	-	-
1964-65	-	-	-	-	-	-	-	-	-	-	2	-	42	-	-	-
1965-66	-	-	-	-	-	-	-	-	-	-	2	-	46	-	-	-
1966-67	-	-	-	-	-	-	-	-	-	-	2	-	48	-	-	-
Swan Lake																
1960-61	-	21	31	8	-	120	-	-	5	-	-	163	-	-	-	-
1961-62	-	15	23	6	-	96	-	-	4	-	-	120	-	-	-	-
1962-63	-	34	51	13	-	207	-	-	9	-	-	261	-	-	-	-
1963-64	-	23	35	9	-	142	-	-	6	-	-	179	-	-	-	-
1964-65	-	20	43	11	-	175	-	-	7	-	-	221	-	-	-	-
1965-66	-	32	40	12	-	198	-	-	8	-	-	250	-	-	-	-
1966-67	-	30	44	11	-	182	-	-		-	-	230	-	-	-	-

TABLE 31. PROBABLE ADDITIONAL THROUGH-PUT AT ALTERNATIVE DELIVERY POINTS IF SPECIFIED DELIVERY POINTS HAD BEEN CLOSED, 1960-61 TO 1966-67 (continued)

Specified Points	Alternative Delivery Points															Trees- bank
	Mather	Treherne	La Riviere	Landseer	Clear- water	Holland	Glenboro	Cypress River	Pilot Mound	Holm- field	Killarney	Wood Bay	Ninga	Cart- wright	Nesbitt	
- thousand bushels -																
Indian Springs																
1960-61	-	-	-	58	-	6	-	8	6	-	-	27	-	-	-	-
1961-62	-	-	-	42	-	5	-	6	4	-	-	20	-	-	-	-
1962-63	-	-	-	104	-	12	-	14	10	-	-	49	-	-	-	-
1963-64	-	-	-	73	-	8	-	10	7	-	-	34	-	-	-	-
1964-65	-	-	-	98	-	11	-	14	9	-	-	46	-	-	-	-
1965-66	-	-	-	80	-	9	-	11	8	-	-	38	-	-	-	-
1966-67	-	-	-	93	-	10	-	13	9	-	-	44	-	-	-	-
Mariapolis																
1960-61	-	-	-	-	-	-	-	77	87	-	-	-	-	-	-	-
1961-62	-	-	-	-	-	-	-	35	39	-	-	-	-	-	-	-
1962-63	-	-	-	-	-	-	-	71	80	-	-	-	-	-	-	-
1963-64	-	-	-	-	-	-	-	61	69	-	-	-	-	-	-	-
1964-65	-	-	-	-	-	-	-	94	106	-	-	-	-	-	-	-
1965-66	-	-	-	-	-	-	-	89	100	-	-	-	-	-	-	-
1966-67	-	-	-	-	-	-	-	82	92	-	-	-	-	-	-	-
Greenway																
1960-61	-	-	-	-	2	-	-	50	21	-	-	-	-	-	-	-
1961-62	-	-	-	-	1	-	-	25	10	-	-	-	-	-	-	-
1962-63	-	-	-	-	3	-	-	80	34	-	-	-	-	-	-	-
1963-64	-	-	-	-	2	-	-	45	19	-	-	-	-	-	-	-
1964-65	-	-	-	-	2	-	-	68	28	-	-	-	-	-	-	-
1965-66	-	-	-	-	3	-	-	69	29	-	-	-	-	-	-	-
1966-67	-	-	-	-	2	-	-	55	23	-	-	-	-	-	-	-
Baldur																
1960-61	-	-	-	-	3	-	159	40	-	-	-	-	-	32	-	-
1961-62	-	-	-	-	1	-	78	19	-	-	-	-	-	16	-	-
1962-63	-	-	-	-	4	-	252	63	-	-	-	-	-	51	-	-
1963-64	-	-	-	-	3	-	145	36	-	-	-	-	-	29	-	-
1964-65	-	-	-	-	4	-	217	54	-	-	-	-	-	44	-	-
1965-66	-	-	-	-	4	-	202	51	-	-	-	-	-	41	-	-
1966-67	-	-	-	-	4	-	203	51	-	-	-	-	-	41	-	-
Belmont																
1960-61	-	-	-	-	-	-	-	-	-	73	-	-	-	120	-	38
1961-62	-	-	-	-	-	-	-	-	-	32	-	-	-	53	-	17
1962-63	-	-	-	-	-	-	-	-	-	112	-	-	-	185	-	59
1963-64	-	-	-	-	-	-	-	-	-	79	-	-	-	130	-	41
1964-65	-	-	-	-	-	-	-	-	-	110	-	-	-	181	-	57
1965-66	-	-	-	-	-	-	-	-	-	85	-	-	-	141	-	45
1966-67	-	-	-	-	-	-	-	-	-	127	-	-	-	210	-	67

TABLE 31. PROBABLE ADDITIONAL THROUGH-PUT AT ALTERNATIVE DELIVERY POINTS IF SPECIFIED DELIVERY POINTS HAD BEEN CLOSED, 1960-61 TO 1966-67 (Continued)

Specified Points	Alternative Delivery Points													Trees- bank	
	Mather	Treherne	La Riviere	Landseer	Clear- water	Holland	Glenboro	Cypress River	Pilot Mound	Holm- field	Killarney	Wood Bay	Ninga		Cart- wright
- thousand bushels -															
Ninette															
1960-61	-	-	-	-	-	-	-	-	-	-	77	-	-	-	33
1961-62	-	-	-	-	-	-	-	-	-	-	25	-	-	-	11
1962-63	-	-	-	-	-	-	-	-	-	-	85	-	-	-	37
1963-64	-	-	-	-	-	-	-	-	-	-	76	-	-	-	33
1964-65	-	-	-	-	-	-	-	-	-	-	91	-	-	-	39
1965-66	-	-	-	-	-	-	-	-	-	-	103	-	-	-	45
1966-67	-	-	-	-	-	-	-	-	-	-	111	-	-	-	48
Dunrea															
1960-61	-	-	-	-	-	-	-	-	-	-	95	-	111	-	105
1961-62	-	-	-	-	-	-	-	-	-	-	58	-	68	-	65
1962-63	-	-	-	-	-	-	-	-	-	-	114	-	132	-	126
1963-64	-	-	-	-	-	-	-	-	-	-	96	-	111	-	106
1964-65	-	-	-	-	-	-	-	-	-	-	122	-	142	-	135
1965-66	-	-	-	-	-	-	-	-	-	-	140	-	163	-	155
1966-67	-	-	-	-	-	-	-	-	-	-	140	-	163	-	155
Margaret															
1960-61	-	-	-	-	-	-	-	-	-	-	-	-	134	-	98
1961-62	-	-	-	-	-	-	-	-	-	-	-	-	110	-	80
1962-63	-	-	-	-	-	-	-	-	-	-	-	-	114	-	83
1963-64	-	-	-	-	-	-	-	-	-	-	-	-	118	-	86
1964-65	-	-	-	-	-	-	-	-	-	-	-	-	170	-	124
1965-66	-	-	-	-	-	-	-	-	-	-	-	-	175	-	128
1966-67	-	-	-	-	-	-	-	-	-	-	-	-	171	-	125
Glenora															
1960-61	-	-	-	-	91	-	-	5	73	-	-	-	-	11	-
1961-62	-	-	-	-	42	-	-	2	34	-	-	-	-	5	-
1962-63	-	-	-	-	165	-	-	9	132	-	-	-	-	20	-
1963-64	-	-	-	-	116	-	-	7	93	-	-	-	-	14	-
1964-65	-	-	-	-	124	-	-	7	99	-	-	-	-	15	-
1965-66	-	-	-	-	112	-	-	6	89	-	-	-	-	13	-
1966-67	-	-	-	-	121	-	-	7	91	-	-	-	-	15	-
Neelin															
1960-61	2	-	-	-	-	-	-	-	-	75	-	-	-	102	-
1961-62	1	-	-	-	-	-	-	-	-	54	-	-	-	74	-
1962-63	3	-	-	-	-	-	-	-	-	112	-	-	-	153	-
1963-64	2	-	-	-	-	-	-	-	-	77	-	-	-	105	-
1964-65	3	-	-	-	-	-	-	-	-	106	-	-	-	145	-
1965-66	3	-	-	-	-	-	-	-	-	106	-	-	-	145	-
1966-67	3	-	-	-	-	-	-	-	-	112	-	-	-	153	-

TABLE 31. PROBABLE ADDITIONAL THROUGH-PUT AT ALTERNATIVE DELIVERY POINTS IF SPECIFIED DELIVERY POINTS HAD BEEN CLOSED, 1960-61 TO 1966-67 (Concluded)

Specified Points	Alternative Delivery Point														
	Wathov	Trebrone	La Riviere	Raddeer	Clear-water	Holland	Glenboro	Cypress River	Pilot Mound	Holm-field	Killarney Bay	Ninga	Cartwright	Nesbitt	Trees-bank
- thousand bushels -															
TOTAL ALL FIFTEEN POINTS															
1960-61	2	21	31	66	95	136	179	180	191	147	174	190	287	265	501
1961-62	1	16	23	48	45	100	85	87	91	87	84	140	203	148	293
1962-63	3	34	51	117	172	213	279	238	264	224	200	311	281	409	718
1963-64	2	23	35	81	120	150	163	160	193	156	173	214	266	278	535
1964-65	3	29	43	109	130	186	242	237	250	215	215	267	355	384	702
1965-66	3	32	48	92	118	207	225	227	235	192	246	288	385	340	789
1966-67	3	30	44	104	127	193	203	208	229	239	253	274	382	419	760

¹ Nearest delivery point to farm, via good roads; all else assumed unchanged.

Through-Put Ratios Based on Actual, Plus Probable Additional Bushelage

Table 32 shows the actual through-put ratio of grain handling to storage capacity for all 31 points in the Killarney Study Area for the crop years 1962-63 and 1966-67, together with through-put ratios that would prevail if the first fifteen delivery points shown in Table 32 were closed. The greatest beneficiaries of this arbitrary redistribution would appear to be the elevator plants at Holmfield, where the through-put ratio would have increased from 3.48 to 7.96 in 1962-63, and Wood Bay where the ratio would have moved from 2.51 to 8.31. The through-put ratio at Mather would be affected the least.

It would appear that no addition to existing plant would be needed at the delivery points remaining open. At Wood Bay and Holmfield the ratios of above 8.1 would not likely prove to be too onerous.

The exception to this would be Treesbank where the through-put ratio would move to an unweidly 25.1. If Treesbank were to accommodate the additional bushelage certainly more capital would have to be expended on grain handling facilities there.

TABLE 32. RATIO OF GRAIN DELIVERIES TO STORAGE CAPACITY IF SPECIFIED DELIVERY POINTS HAD BEEN CLOSED, 1962-63 AND 1966-67.

Delivery Point	1962-63 ¹	1966-67 ¹	1962-63 ²	1966-67 ²
Rounthwaite	3.03	3.53		
Wawanesa	2.57	2.76		
Hilton	3.12	-		
Rhodes	1.35	1.86		
Swan Lake	1.49	1.31		
Indian Springs	2.92	2.60		
Mariapolis	1.99	3.30		
Greenway	2.39	1.63		
Baldur	2.91	2.00		
Belmont	3.09	2.18		
Ninette	4.93	3.56		
Dunrea	2.82	4.89		
Margaret	1.57	2.35		
Glenora	4.50	3.31		
Neelin	2.00	2.01		
Mather	2.35	2.31	2.37	2.33
Treherne	2.08	1.96	2.18	2.05
La Riviere	2.68	2.72	3.03	3.03
Landseer	1.69	1.14	2.95	2.26
Clearwater	3.00	2.73	4.64	3.94
Holland	1.31	1.22	1.80	1.65
Glenboro	2.92	3.42	4.45	4.71
Cypress River	1.99	1.64	2.85	2.32
Pilot Mound	2.80	2.41	4.16	3.59
Holmfield	3.48	3.73	7.96	8.52
Killarney	1.82	1.95	2.15	2.32
Wood Bay	2.51	1.68	8.31	6.78
Ninga	0.81	1.64	1.97	3.21
Cartwright	2.40	2.45	4.25	4.35
Nesbitt	2.10	2.85	3.73	4.87
Treesbank	1.44	2.00	23.21	25.04

¹ Ratios of actual handlings for all points for crop years 1962-63 and 1966-67.

² Ratios after diversion from Rounthwaite, Wawanesa, Hilton, Rhodes, Swan Lake, Indian Springs, Mariapolis, Greenway, Baldur, Belmont, Ninette, Dunrea, Margaret, Glenora and Neelin for crop years 1962-63 and 1966-67.

Farm Acreage Diverted to Open Points

Table 33 shows on a percentage basis, the proportion of hinterland diverted from the closed points to those remaining open. The percentage ranges from 1.1 percent of the Neelin hinterland diverted to Mather, to 81.9 percent of the Wawanesa hinterland diverted to Treesbank. In actual fact, of course, Wawanesa and Treesbank have been considered as a dual delivery point for several years.

Farm to Elevator Hauling Distances a)

Table 34 provides information concerning the length of haul from farm to elevator in the fifteen specified points that are assumed to be closed, based on 1962-63 experience. The range of haul varies from 3.13 miles at Rhodes to 5.48 miles at Dunrea. If the elevator plant at these points were closed, the average hauling distance, of course, would rise. The least increase, 2.52 would occur in the Wawanesa hinterland. The greatest would be at Belmont, where the average length of haul for permit holders who had been delivering to Belmont would be 17.18 miles, an increase of 11.50 miles. The range of the new averages would be from 7.04 miles (Rhodes) to 17.18 miles (Belmont).

TABLE 34. AVERAGE FARM-TO-ELEVATOR HAULING DISTANCES IN THE STUDY AREA 1962-63, AND ESTIMATED AVERAGE IF SPECIFIED ELEVATOR POINTS HAD BEEN CLOSED.

Specified Points	Average Distance 1962-63	Average Distance ^{1/}
- miles -		
Rounthwaite		7.79
Additional Haul	4.61	3.18
Wawanesa		7.85
Additional Haul	5.33	2.52
Hilton		11.78
Additional Haul	3.18	8.60
Rhodes		7.04
Additional Haul	3.13	3.91
Swan Lake		12.08
Additional Haul	5.46	6.62
Indian Springs		12.85
Additional Haul	5.18	7.67
Mariapolis		14.69
Additional Haul	4.24	10.45
Greenway		15.17
Additional Haul	3.96	11.21
Baldur		15.13
Additional Haul	5.32	9.81
Belmont		17.18
Additional Haul	5.59	11.59
Ninette		14.93
Additional Haul	5.28	9.65
Dunrea		16.21
Additional Haul	5.48	10.73
Margaret		12.64
Additional Haul	4.73	7.91
Glenora		13.35
Additional Haul	4.23	9.12
Neelin		11.76
Additional Haul	4.73	7.03

^{1/} Assume Rounthwaite, Wawanesa, Hilton, Rhodes, Swan Lake, Indian Springs, Mariapolis, Greenway, Baldur, Belmont, Ninette, Dunrea, Margaret, Glenora and Neelin closed.

Farm to Elevator Hauling Distances b)

Table 35 provides information concerning the length of haul from farm to elevator in 16 points that are assumed to remain open and which would receive grain from farms in the hinterlands of the 15 closed points. Again, this is based on 1962-63 experience. The range of haul of these points varies from 3.17 miles (Treesbank) to 9.49 miles (Killarney). With the addition of the reallocated land to the hinterlands of the 16 points the average haul ranges between 5.22 miles (Mather) to 11.56 (Holmfield). The greatest increase would be noted at Treesbank where the average increases by 8.11 miles.

The average haul and the size of hinterland at Crystal City would not change. This delivery point is assumed to remain open but no grain from the closing points would be diverted there. The length of haul from farms to the elevators at Crystal City averages 6.53 miles.

TABLE 35. AVERAGE FARM-TO-ELEVATOR HAULING DISTANCES, 1962-63, AND INCREASED SIZE OF HINTERLANDS OF DELIVERY POINTS BEING USED AS GRAIN DIVERSION POINTS

Diversion Points	Average Distance 1962-63	Average Distance ^{1/}
	- miles -	
Mather	5.13	5.22
Additional Size		0.09
Treherne	6.89	7.18
Additional Size		0.29
La Riviere	5.44	6.14
Additional Size		0.70
Landseer	3.63	7.11
Additional Size		3.48
Clearwater	5.46	8.56
Additional Size		3.10
Holland	6.72	8.26
Additional Size		1.54
Glenboro	6.76	10.68
Additional Size		3.92
Cypress River	5.96	8.92
Additional Size		2.96
Pilot Mound	5.73	8.83
Additional Size		3.10
Holmfield	5.57	11.56
Additional Size		5.91
Killarney	9.49	10.45
Additional Size		0.96
Wood Bay	3.50	9.56
Additional Size		6.06
Ninga	5.24	8.67
Additional Size		3.43
Cartwright	6.00	8.73
Additional Size		2.73
Nesbitt	5.65	7.49
Additional Size		1.84
Treesbank	3.17	11.28
Additional Size		8.11

^{1/} Assume Rounthwaite, Wawanesa, Hilton, Rhodes, Swan Lake, Indian Springs, Mariapolis, Greenway, Baldur, Belmont, Ninette, Dunrea, Margaret, Glenora and Neelin closed.

Permit Holders Before and After Diversion

Table 36 provides data concerning the number of permit holders in the Killarney study region in 1962-63. This information is given for each of the 32 points listed. The number of permit holders delivering to the 15 points that are assumed to be closed, totals 1,185 or 36.4 percent of the total number of permit holders in the study. The range is from 31 at Hilton to 154 at Swan Lake.

The 1,185 permit holders have been re-assigned, hypothetically, to the 17 points that are assumed to remain open. Crystal City would experience no change. The change in the number of permit holders at the other 16 points ranges from two at Mather to 185 at Treesbank. Obviously a problem would be created at Treesbank.

TABLE 36. NUMBER OF PERMIT HOLDERS, BY DELIVERY POINTS, AND ESTIMATED NUMBER IF CERTAIN GRAIN DELIVERY POINTS WERE CLOSED

Delivery Point	Number of Permit Holders 1962-63	Estimated Number of Permit Holders 1962-63 ^{1/}
Rounthwaite	86	-
Wawanesa	70	-
Hilton	31	-
Rhodes	15	-
Swan Lake	154	-
Indian Springs	60	-
Mariapolis	52	-
Greenway	40	-
Baldur	133	-
Belmont	136	-
Ninette	69	-
Dunrea	97	-
Margaret	69	-
Glenora	88	-
Neelin	85	-
Crystal City	102	102
Mather	94	96
Treherne	205	215
La Riviere	87	98
Landseer	40	72
Clearwater	83	131
Holland	158	222
Glenboro	191	362
Cypress River	147	225
Pilot Mound	127	207
Holmfield	45	126
Killarney	351	429
Wood Bay	42	131
Ninga	109	207
Cartwright	150	221
Nesbitt	124	211
Treesbank	11	196
Study Area Total	3,251	3,251

^{1/} Assume Rounthwaite, Wawanesa, Hilton, Rhodes, Swan Lake, Indian Springs, Mariapolis, Greenway, Baldur, Belmont, Ninette, Dunrea, Margaret, Glenora and Neelin closed.

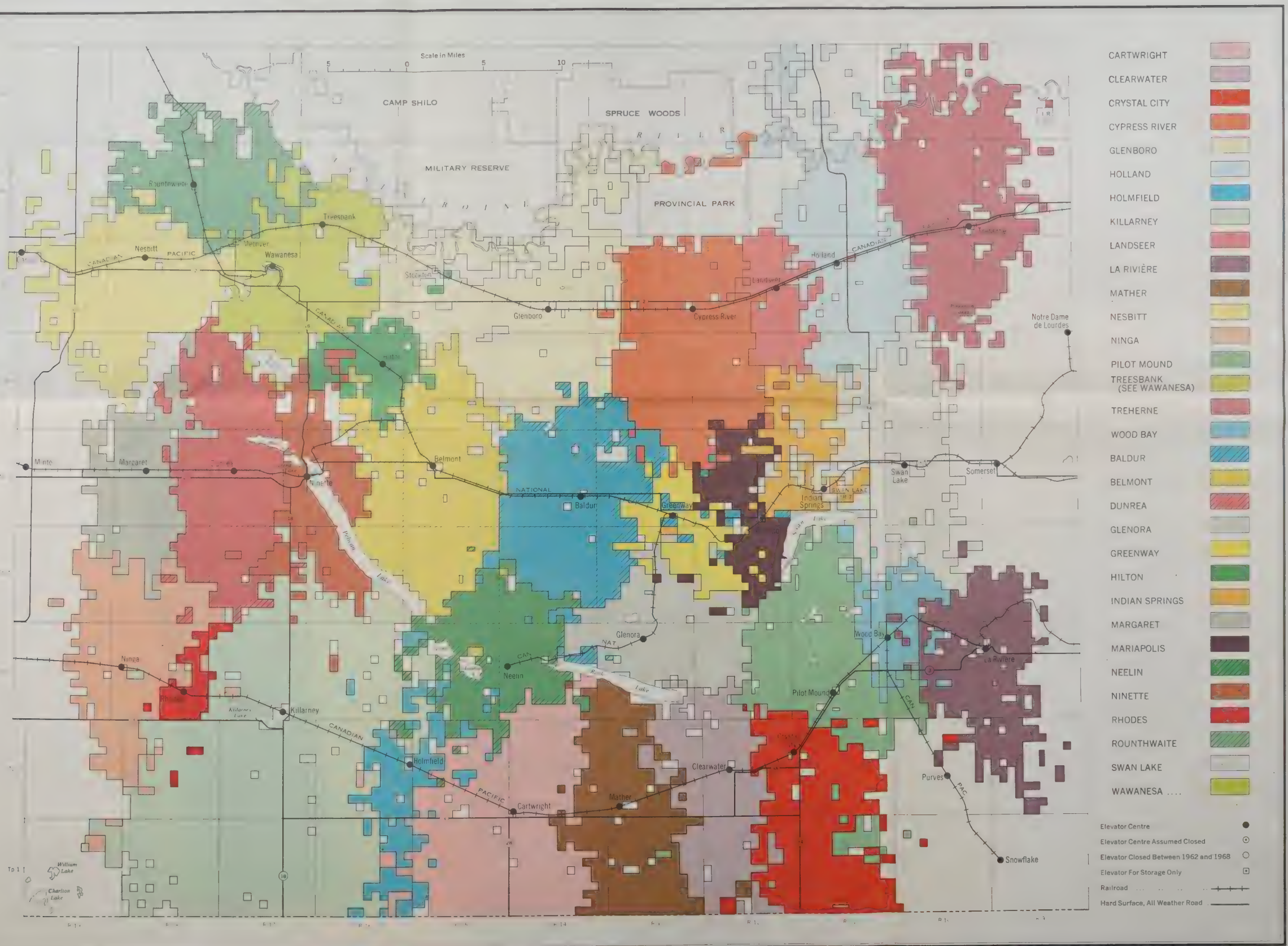
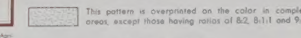


Figure 1. Grain farms in relation to their respective delivery points, Killarney Region, Manitoba, 1962-63.

DESCRIPTIVE LEGEND



Cartography by the Soil Research Institute, Research Branch, Canada Department of Culture with the support of ARDA, Canada Department of Forestry. Base map and profile the Survey and Mapping Branch, Department of Mines and Technical Surveys, Ottawa, 1970.

Capability classification by the Manitoba Soil Survey with the support of ARDA, Canada Department of Forestry.

BRANDON 62 G

Subregion	Unit(s)
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I No

II Modern

III	Moderately severe
IV	Severe

V.....Very severe

BRANDON-62 C

BRANDON-82 C

GENERAL DESCRIPTION OF THE BRANDON MAP SHEET AREA, 62G

The Brandon map sheet area lies in the south-central part of the province and is obliquely traversed by an escarpment along the east side that separates the Manitoba Lowlands of the Red River Valley from the uplands of the Second Prairie Steppe. The area, a total of 4 million acres, has six significant sections: the nearly level expanse of the Red River Valley and Lower Assiniboine Delta in the Manitoba Lowlands, the level to almost level of the Upper Assiniboine Delta, the across-the-top of the Pembina-Tiger Hills, the gently undulating Woodlands-Manitou Tilt Plain and the gently undulating Newdale Tilt Plain. The elevation ranges from 1,725 feet above sea level at the southwest corner of the area to 814 feet at Lake Manitoba. Drainage is provided by the Assiniboine, Pembina and Souris rivers and their tributaries. The native vegetation is open grassland interspersed with clumps of aspen and occasional oak, except for the Pembina-Tiger Hills section where stands of broad-leaved and coniferous trees prevail.

The population of the area is over 100,000, of which nearly one half is in Brandon, its principal city. From Brandon paved, highway radiate in all directions connecting with good secondary roads. The area also is well serviced by the CNE and CPR.

CLIMATE

The climate of the Brandon area is continental, that is, the summer temperatures are higher, the winter temperatures lower and the normal range much greater than the world average for the latitude. The mean temperature for June to August is 64°F and for December to February, 37°F. The frost-free period, above 32°F, usually exceeds 90 days and the growing season averages more than 160 days. In the Red River Valley these values are slightly higher.

Precipitation in the area varies from 17.5 to 20.5 inches, increasing from west to east. Approximately 75 percent falls as rain during the summer and the remainder as snow during November to March.

MAIN SOIL CHARACTERISTICS

The area has a layer of fill which is covered by moderately calcareous water-sorted sediments of all textures in the Manitoba Lowlands, in the Upper Assiniboine Delta and along the Pembina River and its tributaries. The fill is medium-textured, moderately calcareous material derived from glacial till, loessine, sandstone and shale rocks. Aspects noted: 42 percent is gravelly till, 40 percent is loessine, sandstone and shale rocks, 12 percent is gravelly material mostly as sand dunes, 3 percent is alluvium and the remainder is water.

The entire area lies in the Black soil zone, but Gray Wooded soils occur in small isolated areas in the Pembina-Tiger Hills section. Brief descriptions of the soils at the order level follow.

Over 90 percent of the soils in the area are in the Chernozemic Order. These are described by texture as follows: Red River Valley — Medium to fine-textured, moderately calcareous incixative soils occur south of Carman and below the 850 foot contour north to the Fortage Plain. These soils are mainly in Capability Classes 1 and 2; the poorly drained clays are in Class 3.

Lower Assiniboine Delta — This section, which is north of Carman between the 850- and 1,000-foot contours, has soils that are sandy, moderately to weakly calcareous and dominantly imperfectly drained. These are placed in Classes 3 and 4 depending on the coarseness and drainage.

Upper Assiniboine Delta — In this section are about 300,000 acres of sandy deltaic sediments, most of which have been affected by duning to various degrees. These soils have weakly to moderately developed horizons that are formed from fine sands with moderate amounts of fine. Soil capabilities range from Class 4 where the horizon is level through Class 5 with mounds to mounds during permitting soil improvement, in Class 6 for strongly duned soils suited only for limited grazing. Within the section gravelly soils are placed in Class 5, the pebbly clay types in Class 2 to 4 depending on topography and erosion, and the medium to fine-textured loessine soils in Classes 1 to 3.

Pembina-Tiger Hills — This section, in general, is a rough area containing of medium-textured, moderately calcareous fill. The soil capabilities range from Class 2 where the slopes do not exceed 5 percent to Class 4 where slopes are over 30 percent. Water erosion of cultivated fields has been severe in this section and much of the land is now used for hay production and grazing.

Woodlands-Manitou Tilt Plain — The soils in this section are dominantly formed on medium-textured, moderately calcareous fill. Some water and deposits occur along the Pembina Channel and its tributaries. Soil capabilities for the fill soils are mainly Class 3 because of slope and minor soil limitations; the capabilities for those formed on water-sorted sediments range from Class 2 for medium- to fine-textured to Class 3 for gravelly surface deposits.

Newdale Tilt Plain — In this section the soils are developed on moderately calcareous, medium to moderately fine textured fill. These soils are Class 2. Here the only limitation is the irregular terrain with slopes up to about 8 percent and numerous small unstable sloughs.

Reggularly soils occupy about 100,000 acres of land mainly along the Assiniboine and Pembina rivers. These are light-colored soils developed on medium- to fine-textured, moderately calcareous sediment with a high productivity potential. The soil capabilities range from Class 1 to Class 3 depending on the hazard of flooding or crop production.

Approximately 200,000 acres of land are poorly drained and unsuitable for grain production without reclamation. These Gleysolic soils, except in the Red River Valley, occupy the sloughs and marshes and are wet for part or all of the year. In the Red River Valley, where effective drainage ditches have been installed, the capability is up to Class 3. In other areas the capability is Class 4 to 6 depending on the length of time the land is unsuitable.

Soils in the Podzolic, Solonchaks and Organic orders are relatively unimportant and together constitute less than one half of one percent of the total area. Where found, they are considered to be marginal for agriculture or pasture use.

AGRICULTURE

The first settlers arrived at Fort la Reine (Portage la Prairie) about 1813 and established a subsistence type of agriculture along the Assiniboine River that continued for about 50 years. When Manitoba became a province in 1870 a quadrilateral system of survey of farm lands began and settlers started westward and southward. By 1890 most of the accessible lands had been homesteaded and the major influx of settlers had passed. Today there are about 8,000 farm operators with an average holding of about 300 acres of which 75 percent is improved.

Crops produced in the area is decreasing acreage are: wheat, oats, hay, flax, barley, mixed grain, rye, corn and potatoes. In the Red River Valley crops of local importance are field peas, sugar beets, mustard, rape seed and buckwheat.

Livestock production is common throughout the area; the average number of cattle per farm is 30 head, twice 10 and sheep 2. Poultry is produced on nearly all farms in small numbers, usually for home consumption.

Capability classification by W. A. Enrich, based on soil information obtained in Manitoba Soil Survey Reports.

DESCRIPTION GÉNÉRALE-RÉGION DE LA CARTE 62G — BRANDON

La région cartographiée de Brandon comprend la partie sud-occidentale de la province. Elle est traversée obliquement à l'est par un escarpement qui sépare les hautes terres de la première prairie steppe des hautes terres de la deuxième prairie steppe. La région compte 4 millions d'acres et peut être divisée de la façon suivante, étendue quasi plane de la vallée de la rivière Rouge et du delta de l'Assiniboine inférieure jusqu'à partie des hautes terres du Manitoba; terres sèches et dunes à l'est de l'Assiniboine supérieure; secteur montagneux des collines Pembina-Tiger; plaines montagneuses légèrement ondulées de Woodlands-Manitou; plaines montagneuses légèrement ondulées de Newdale. L'élévation varie de 1,725 pieds au-dessus du niveau de la mer dans le nord-ouest de la région cartographiée à 814 pieds au sud-est. Manitoba. Le drainage est assuré par les rivières Assiniboine, Pembina, Souris et leurs tributaires. La végétation indigène comprend des prairies parsemées de bosquets de hautes et de hautes chênes, sauf dans les collines Pembina-Tiger où les peuplements de feuillus et de conifères prédominent.

La région compte plus de 100,000 habitants; deux tiers du tiers sont groupés dans la ville principale, Brandon, d'où partent en tous sens des routes pavées commencent avec de bons chemins secondaires; la région est aussi bien desservie par le National-Canadien et la Pacifique-Canadien.

CLIMAT

Le climat de Brandon est continental; température estivale plus élevée, température hivernale plus basse et variation normale beaucoup plus prononcée que dans d'autres régions à la même altitude. De juin à août la température moyenne est de 64°F; de décembre à février, de 37°F. La période sans gel (température supérieure à 32°F) dure ordinairement plus de 90 jours, et le saison de végétation, plus de 160 jours. Dans la vallée de la rivière Rouge, ces deux périodes sont un peu plus longues.

De l'ouest à l'est, la précipitation varie progressivement de 17,5 à 20,5 pouces. Environ 75 p. cent de cette précipitation tombe en été, sous forme de pluie, et le reste, sous forme de neige, de novembre à mars.

PRINCIPALES CARACTÉRISTIQUES DES SOIS

La région est couverte de dépôts morainiques; les hautes terres du Manitoba, le delta de l'Assiniboine supérieure, les rives de la Pembina et de ses tributaires, sont recouvertes de sédiments modérément calcariés et de toutes textures, déposés en strates par les eaux. Les dépôts morainiques, de texture moyenne, sont formés de matériaux ordinairement calcaires provenant de roches granitiques, calcaires, gréseuses et schisteuses. Leur composition est, comme suit: dépôts glaciaires, 42 p. cent environ; sédiments lacustres, 40 p. cent; matériaux éolians légers de sable tourbillé, 12 p. cent; apports alluviaux, 3 p. cent et eau.

La région entière fait partie de la zone des sols noirs, mais on trouve des fers de sols bruns gris, disséminés dans les collines Pembina-Tiger. Voici une description des sols, par ordre.

Rue de 90 p. cent des sols dans la région cartographiée appartiennent à l'ordre chernozémique.

Vallée de la rivière Rouge — Des sols de texture moyenne à fine, modérément calcaires, d'origine lacustre, se trouvent au sud de la région de Carman et au bas de la courbe de niveau de 850 pieds d'élévation vers le nord jusqu'aux plaines de Portage. Ces sols se rangent, par leurs possibilités, dans les classes 1 et 2, soit les orges mol épaisses qui tombent dans la classe 3.

Delta de l'Assiniboine inférieure — Cette région s'étend au nord de Carman entre les courbes de niveau de 850 et de 1,000 pieds d'élévation. Les sols y sont sabonneux, modérément ou faiblement calcaires et en grande partie inégalement égaux. Ils entrent dans les classes 3 et 4, selon le degré de grossièreté de la texture et le défaut du drainage.

Delta de l'Assiniboine supérieure — La région comprend presque 300,000 acres de sédiments deltaïques de nature sabonneuse, dont la majeure partie a été plus ou moins transformée en dunes. Les horizons de ces sols, constitués de sable fin à texture moyenne ou chaux, sont faiblement ou modérément différenciés. Les terres planes se rangent dans la classe 4, les accro-dunes et les méso-dunes permettant l'installation du sol dans la classe 3 et les grosses dunes propres uniquement à la polacence modérée, dans la classe 4. Les sols graveleux tombent dans la classe 5; les types limoneux, drainés dans les classes 2 à 4, selon la topographie et le volume de l'érosion; les sols lacustres de texture moyenne à fine, dans les classes 1 à 3.

Collines Pembina-Tiger — Cette région généralement accidentée est formée de dépôts morainiques modérément calcaires et à texture moyenne. La classification des sols varie depuis la classe 2 jusqu'à la classe 6. Les sols qui les pentes sont de moins de 5 p. cent se placent dans la classe 2, et ceux où les pentes atteignent plus de 30 p. cent, dans la classe 4. Les terres en culture ont généralement souffert d'érosion par l'eau et une bonne partie ont été transformées en pâturages ou affectées à la production de foin.

Plaine glaciaire de Woodlands-Manitou — Les sols sont de sable tourbillé, formés de dépôts morainiques modérément calcaires et de texture moyenne. On trouve des collines le long du lit de la Pembina et de ses tributaires. Du point de vue de leurs possibilités agricoles, les sols formés de dépôts glaciaires se rangent principalement dans la classe 2 à cause de leurs pentes et de leurs limitations assez minimes d'alluvion; les sols formés d'alluvions s'échouent, depuis la classe 2 dans la partie des terres de texture moyenne à fine, jusqu'à la classe 5 dans celui des dépôts graveleux, de délaçage.

Plaine glaciaire de Newdale — Les sols de cette région ont été formés sur des dépôts morainiques modérément calcaires et de texture moyenne à modérément fine. Ils entrent dans la classe 2. La seule limitation tient des pentes qui peuvent atteindre 8 p. cent et de la présence de nombreux petits marécages. Les sols régénérés occupent environ 100,000 acres de terre qui s'étendent surtout le long des rivières Assiniboine et Pembina. De couleur claire, ils sont formés de sédiments modérément calcaires, de texture moyenne à fine. Leur productivité potentielle est élevée. Ils se rangent dans les classes 1 à 3, selon le degré de danger d'inondation. Environ 200,000 acres de terres sont mal agencées et impropres à la culture des céréales à moins qu'on y pratique des travaux d'assainissement. Seul dans la vallée de la rivière Rouge, ces sols glycoliques forment des marécages et des mares qui restent inaliés d'eau à longueur d'année parfois. Dans la vallée de la rivière Rouge, l'aménagement de fossés d'égouttement a permis de faire entrer ces terres dans la classe 3, ailleurs ces terres sont mises dans les classes 4 à 6, selon la durée du temps où elles demeurent inutilisables.

Les sols des ordres podzoliques, solonchaks et organique ont relativement peu d'importance. Globalement, ils occupent moins de 75 p. cent de la superficie de la région, et sont peu utilisables pour la culture et les pâturages.

AGRICULTURE

Les premiers colons sont arrivés à Fort-la-Reine (Portage-la-Prairie) vers 1813. Ils se sont établis sur les rives de la rivière Assiniboine où ils ont pratiqué une agriculture de subsistance qui a duré une soixantaine d'années. À l'arrivée du Manitoba dans la Confédération, en 1870, un nouveau régime d'arpentage a été établi, et la colonisation a commencé vers l'ouest et le sud. Dès 1890, presque toutes les bonnes terres avaient été concédées et depuis, l'affluence de colons est allée en diminuant. De nos jours on y compte approximativement 8,000 cultivateurs exploitant des terres de 500 acres environ en moyenne; 75 p. cent de ces terres sont améliorées.

Les cultures pratiquées dans cette région comprennent par ordre décroissant blé, orge, foin, les orges, céréales mixtes, seigle, maïs et pommes de terre. De plus, dans la vallée de la rivière Rouge, les pois des champs, les betteraves à sucre, la graine de moutarde, la navette et le sarrasin prennent de l'importance.

L'élevage est pratiqué partout dans la région. Chaque ferme compte en moyenne 30 boeufs, 10 porcs, 2 moutons, ainsi qu'un nombre suffisant de vaches pour payer à ses besoins.

Classification des sols selon leurs possibilités par W. A. Enrich, d'après les renseignements obtenus dans les relevés pédologiques de la province du Manitoba.

